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Relationship as an Energetic Exchange:
A Key Theory for the Nurtured Heart Approach

By

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MSW Clinical Research Paper

Presented to the faculty of the School of Social Work
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The Clinical Research Project is offered as an elective for MSW students at St. Catherine University - University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted to demonstrate facility with basic social research methods. Students must independently conceptualize, design, and implement a research project, as well as publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

Abstract

“Relationships as a form of energy exchange” is a concept used by Howard Glasser’s Nurtured Heart Approach to explain the relationship dynamics between children and their adult care givers. This energy exchange can sometimes lead to challenging behaviors in a child when their energy is too intense for the child to regulate independently, or for the parents to moderate through traditional parenting approaches. The concept of relationships as an energy exchange is written about by Howard Glasser in regards to the Nurtured Heart Approach, a parent training and behavioral modification program used to treat children with Attention Deficit Hyperactivity Disorder. Brenner, Hektner, Brotherson and Hansen (2016) challenged the concept of relationships as an energy exchange as an unproven theory in a comparative study of theories used to garner evidence for NHA. In particular, the inability to substantiate the theory was made in application of the discipline of Human Behavior Theory. This paper lays out evidence for relationships as an energy exchange by looking beyond human behavior theory and into social and physical sciences for support of Glasser’s important concept. This article looks at the areas of mirror neurons, attachment theory, neuropsychology, social baseline theory, neurobiology, and neurosociology for support. This literature review looks at studies, articles, and books that demonstrate how it is possible to claim relationships as an energy transaction how this concept can be used successfully to moderate and redirect the problematic behaviors of “intense” children.

Purpose

In 2013, Hektner, Brennan, and Brotherson reviewed the Nurtured Heart Approach (NHA), an evidence informed parent training and behavior modification program. The NHA program is growing in use and application even though it is evidence informed and being researched to gain an evidence based standing. To strengthen its empirical standing and validity, Hektner, et al., (2013) lay out connections between NHA and other empirical findings. They demonstrate supporting theories from several evidence based approaches used in family therapy. Hektner et al. (2013) also point out that there are unsubstantiated theories asserted by NHA's developer and clinician, Howard Glasser. These unsubstantiated theories are important to the parent training program for out of the theories flow the solutions to the approach.

Also unique to NHA is Glasser's referral to children with emotional and behavioral disorders, often diagnosed as Adjustment Disorder, Oppositional-Defiant or Attention Deficit Hyper Activity Disorder, among other labels, as "energy challenged" (Glasser & Easley, 2016, p. 40). "Intense" is another word he uses to describe children with the clinical labels just mentioned. Glasser (2013; 2016) believes "intense" and "energy challenged" are better descriptions than the use of diagnostic terms and labels. Glasser reframes how to approach children whose behaviors create frustration in families and classrooms so that energy is viewed as "fuel toward a child's greatness" and redirected to that end (Glasser & Lewnstein, 2018). Although Glasser and Easley (2016) use the word intense to describe the child for whom NHA is designed, they do not directly define the term "intense." Base upon a study of Glasser and Easley's Transforming the Difficult Child (2016) the term "intense," used in reference to a child or a person in general, can be inferred to mean, and is use as such throughout this paper, as someone who intently focuses with fixation on another person, a behavior, an intent or an

outcome. This is often accompanied with a strong attitude of determination expressed through an outward and energetic expression of emotion, intellect or physical energy toward an end usually perceived negatively by others as a way to overpower or control the circumstances. With that definition, statements like the following provide clarity: “Intense children need to perceive that the container that is each new environment can hold them safely, competently, and fearlessly” (Glasser & Easley, *Transforming the Difficult Child*, 2016). Intense children also crave an energetic connection and will do what is necessary to get an energetic response and relationship (Glasser & Block, 2013). Glasser does not ignore the ADHD label, but states he does not believe in it as a disorder because he has seen so many children who met all the criteria for an ADHD diagnosis who did not meet criteria within a couple of weeks of applying NHA (Glasser & Block, *Notching Up*, 2013). Even so, Glasser promotes NHA as a treatment for ADHD instead of a cure. A number of studies through Glasser’s Children Success Foundation (2018), and more recently through the University of Arizona’s College of Public Health, demonstrate success in the reduction of symptoms of students recommended for medication for ADHD (Nuño, Wertheim, Murphy, Wahl, & Roe, 2018; Taperek & Ruoff, 2009).

One of Glasser’s theories states that a child’s coercive and negative behaviors are a way of asking for a fulfillment of the need for focused, energized attention and social interaction from the parents and others around them, not unlike theories supporting mother-child attachment theory (Glasser & Block, *Notching Up*, 2013). One way for a child to get that need fulfilled is in negative reactions from the parents. It is in the negative reactions that the “intense child” receives the most energetic exchange, or “energized attention” (Glasser & Easley, 2016). Glasser uses an analogy of the parent as the child’s “most fascinating toy” (Glasser & Easley, 2016, p. 20). Like the other toys they play with, they engage their toy through manipulation and pushing

buttons to get a reaction. Brennan, Hektner, Brotherson, and Hansen (2016) go on to point out that this metaphor paints the picture of children as wired to seek emotional connection. Glasser and Easley (2016) write, "Always remember, that the child's ultimate goal is greater connection with you; and that relationship is the access point of this connectivity of expanded bandwidth" (p. 25).

As a parent training program, NHA puts a lot of attention toward retraining parents in order to create a more structured environment and teaching them what to give energy towards and what to ignore. NHA also teaches parents how to regulate their own emotions (Brennan, et al., 2016). As the program teaches the parents how to create the structures to contain the child's disrupted energies and encourage self-regulation, the parents' stress level and anxiety goes down and their confidence in their ability to parent increases (Brennan, et al., 2016; Roth, 2018).

Overall, teaching parents the skills to create a structured environment improves a parent's "emotional energy" reserves and overall feelings of well being as supported in some studies of NHA (Brennan & Hektner, 2013; Glasser & Lewnstein, 2018; Roth, 2018). According to psycho-therapist and author, Mira Kirshenbaum (2003), there is a connection between a person's emotional energy and physical energy. As one who works with parents and their children who struggle with behavioral issues, this researcher observed physical and mental exhaustion. A downward spiraling cycle of exhaustion from everyday life, single parenting, previous traumas, health issues and poor self-care drives a pattern of parental withdrawal from, and neglect of, children. This seemingly self preservation pattern of preventing intense emotional connections causes children to demand more interaction.

The goal of this paper is to review literature to the end of finding support for the theory, "relationships are an energetic exchange" just as Hektner et al. (2013) looked to other theories and systems to garner support for the NHA approach.

Background

The Maternal and Child Bureau's 2010 publication reported the percentage of children in the United States who have one or more emotional, behavioral or developmental conditions is 11.3% (Child and Adolescent Health Measurement Initiative, 2007). A more recent national average from the 2013 Centers for Disease Control's "Morbidity and Mortality Weekly Report" states the prevalence of mental disorders for children 18 and under to be on the rise (CDC, 2013). Attention Deficit /Hyperactivity disorder (ADHD) was reported as the most prevalent diagnosis for children between ages 3 and 17 at an occurrence of 6.8%. Behavioral and conduct disorders made up 3.5% of that population group, followed by anxiety at 3.0%, and depression at 2.1%. The report provided more of a breakdown of percentage per disorder, but for this research topic, the behavioral, mood and conduct disorders along with Attention Deficit Disorder (ADD) were most relevant. An article published in the Clinical Advisor (2013) puts the percentage of children nationwide who suffer with ADHD, behavioral and conduct disorders, autism spectrum disorders, depression, and anxiety between the ages of 3 and 17 at around 16.7%. Additionally, data taken from a 2016 study by the National Survey of Children's Health reveals 6.1 million children were reported to be diagnosed with ADHD (Centers for Disease Control, 2018). These are the issues that drive parents to seek help for behaviors that make parenting and teaching their children in the school system the most challenging.

Howard Glasser, therapist, educator, author and the program developer of the Nurtured Heart Approach (NHA), did not get the expected outcomes when applying commonly taught

behavioral theories to families whose children had dramatic behavioral challenges. In fact, Glasser wrote the traditional therapeutic approaches often seemed to make the circumstances worse for the families whom he was treating (Glasser & Easley, *Transforming the Difficult Child*, 2016). This became the impetus for developing NHA (Children's Success Foundation, 2018). Glasser credits leaving his doctoral studies and doing something more real world and tangible for his ability to develop the Nurtured Heart Approach upon returning to working with families in a clinical setting. However, according to Hektner, et al. (2013), while the NHA approach can mostly be supported by other well established theories, Hektner et al. (2013) also asserts there are theories that are Glasser's alone, which have no empirical bases. Researchers have been encouraged to test those theories to provide more support to the NHA.

The Nurtured Heart Approach is very similar to other parenting education programs in that parents are trained to minimize attention to undesirable behaviors, and also to provide positive attention and praise for desirable behaviors like following the rules (Hektner, et al., 2013). Glasser went on to develop the approach so it can be used to change more than just family dynamics. It can change the dynamics between a teacher and a classroom of students along with the entire school environment (Small & Triandis, 2010; Taperek & Ruoff, 2009). In the secondary phase of development, NHA went from training other clinicians to an approach taught to parents, human service professionals, teachers, agency directors, criminal justice workers, and others within humanistic profession. The Children's Success Foundation aims to make NHA as easy as possible to access and learn the new parenting skills by providing multiple online parent training programs. Professionally, NHA offers certification trainings for those who want to become coaches and trainers while earning CEU's (Children's Success Foundation, 2018).

Fundamentals of NHA

NHA combines a behavior management and parent-child relationship approach. This combination is advocated by other parent training programs like Nurturing Parenting Program (Brennan, et al., 2016; Cavell, 2000).

On the behavioral management side, NHA has a “Three Stand Approach.” The first stand is the refusal to energize negativity: “Absolute No.” The second stand is to energize success: “Absolute Yes.” The third stand is about limits and consequences: “Absolute Clarity” (Glasser, 2015; Hektner, et al., 2013). “Absolute Clarity” utilizes defined boundaries and consequences. It is presented in the form of a “time out” called a “reset”, where the child, or parent, take a moment to collect themselves and calm down to refocus their energies.

On the relational side, parents are taught to shift their emotions and cognitions in order to impact their child’s way of being and interaction. “Children are primed to seek emotional connection with parents, even if occurring via negative interaction, in order to fulfill basic emotional needs” (Brennan, et al., 2016). This goes back to refusing to energize negativity by minimizing expression of anger and giving a consequence without providing it a lot of attention and emotion.

If relationships are a form of energy exchange, as Glasser theorizes, then all children are wired for the exchange which goes to the most fundamental of attachment theories starting with John Bowlby. Taken a step further, “intense children” and those with energy dysregulation (hyperactivity) might crave that intensely energized interaction even more. From Glasser’s perspective, children are walking “energy detectors” (2016). In this case, Glasser refers to energy as outwardly animated behavior which might be demonstrated as a reaction to some achievement or failure. If a parent responds more often to negative behaviors in a bigger way than positive

behaviors, it informs the child's reality that the best way to connection and relationship comes by not doing what parents expect or ask (Glasser & Easley, 2016).

The concept of energy is a repeated theme in the NHA. The focus on the concept of energy as relationship in the NHA individuates it from other parent education programs, which Hektner, et al. (2013) point out is not an established evidence based theory of human behavior. There might not be a bases for Glasser's theory of relationships as energy in human behavior theory, but theoretical basis might lie in other theories like attachment theory or other social science disciplines like psychology. This paper seeks to explore the literature to find support for Glasser's theory of relationships as an energy exchange and why it has created an effective approach to healing behavioral issues, like Attention Deficit Disorder, within families.

Research Questions

This paper seeks to answer the questions: Can relationships defined as an energy exchange be substantiated through an interdisciplinary study of data beyond human behavior theories? Since NHA has been touted as a treatment for Attention Deficit Hyper Activity Disorder, should the idea of an energy exchange deficit between parent and child be looked at more often by mental health providers working with children and adults who suffer from ADHD or emotional dysregulation (Nuño, Wertheim, Murphy, Wahl, & Roe, 2018; Taperek & Ruoff, 2009)?

Conceptual Framework

Energy is a difficult and intangible phenomenon to measure within the human biological, emotional and relational experience. This understanding is important in how the topic is approached, so that proving internal/external measures of energy (quantitative analysis) itself does not become the goal, but the suggestion of how humans experience what social scientist

understand to be a form of energy seems more attainable and realistic. The following are theories on which the research will be focused due to their seemingly more probable leaning toward data that can be used to support Glasser's theory. The theories and approaches researched here were found in the social science fields of Attachment Theory, Mirror Neurons, Interpersonal Neurobiology, Neuropsychology, Social Base Line Theory, and Neurosociology.

Mirror Neurons

In 2010, Divino and Moore (2010) wrote about the discovery of mirror neurons and their effect on affect regulation and the connection to the attachment process. Divino and Moore look at attachment theory principles along with psychodynamic therapy to inform how mirror neurons work within interpersonal dynamics which trigger a neurological process. Simply put, mirror neurons, as described by Divino and Moore (2010), are activated in the brain when observing or performing an action influencing a non-verbal communication process which develops a person's ability to empathize and read. Our mirror neurons fire as if while observing another's actions, we ourselves are performing that action. This is also applied internally to emotions and intentions, not just motor actions (Divino & Moore, 2010). Their research is especially focused on when there is past trauma. In a past trauma there is a neurobiology that surrounds the process of attachment creating an inner working model. Van der Kolk (2014) applies this trauma to not being heard, not being seen, not being mirrored and basically not being taken into account within the care taker/child relationship. If someone experiences a traumatic attachment style in early attachment patterns as described by Van der Kolk's (2014) summary, some studies have linked this to adult states of dissociation. Early trauma disrupts the connections between the brain's left and right hemispheres creating an over development in the areas of the brain stem, the right limbic system and hemisphere (Divino & Moore, 2010). These are all considered the primitive or

survival centered areas of the brain. Over development in these areas creates a hypersensitivity to negative affect and an overdeveloped fear response. Important to this research is Divino and Moore's look at data that concludes that disorganized attachment behaviors in infancy were important predictors of later dissociative symptomatology (2010).

Attachment Theory

Attachment theory came out of observed patterns of parent-child interaction by social scientists, John Bowlby, Wilfred Bion, Harry Guntrip, Ronald Fairbairn and Donald Winnicott (Van Der Kolk, 2014). John Bowlby was the pioneer in attachment theory, with his ideas at first being rejected. He posited that children have a biological predisposition to look to caregivers for safety, for relief of fears, and protection from danger. It is the patterns of responsiveness, which a child is driven naturally to seek, from one or two central adult figures in their lives. A child will develop a "secure attachment" if the care givers respond to their child's distress according to another proponent of this theory, Mary Ainsworth (Van Der Kolk, 2014). However, if the child receives care that is neglectful, or is treated in a rejecting, unresponsive or inconsistent way, an "insecure attachment" forms between caregiver and child (Van Der Kolk, 2014). Insecure attachment can show up later in the behaviors of the child both toward the parent and to the outside world. Such behaviors include, over controlling behavior of the child toward the parent, anxiety and dysregulation (Van Der Kolk, 2014). Attachment Theory demonstrates the exchange part of Glasser's theory and what happens behaviorally if the desired exchange is not fulfilled by the caregiver. Glasser's "Energy Exchange" could be another way to say, "attachment process." The dysregulation of the child looks like behavioral disorders NHA is meant to address. With the successful application of the NHA protocols, the child may be getting his attachment needs fulfilled and then is possibly able to become better regulated.

Neuropsychology

“The study of the relationship between brain function and behavior” (Smith, 2013). This is the most concise definition of one of the newer specialties in the field of psychology. If we put the word “experimental” on front of it, we get a little closer to our interest of looking at brain processes to inform our discussion of neural connections as electrical or energetic conduits. Neuropsychologists are primarily interested in pathologies of the brain, but admit that it is through studying the pathology they find what is normal. According to Efrat Ginot, PhD., there is neuropsychological research in areas of early development and attachment, affect and cognition, and intersubjectivity and attunement. It will be Efrat Ginot who will be our guide in this area that helps us understand the biochemical, therefore energetic, aspect of mirror neurons, intersubjectivity and emotions.

Interpersonal Neurobiology

Interpersonal neurobiology is an umbrella approach which draws upon more than a dozen different disciplines of science that helps us understand our human experience and the process of change across the lifespan. Two disciplines commonly found within Interpersonal Neurobiology are mirror neuron system and neural plasticity. The author and professor of Psychiatry at UCLA, Daniel Siegel, is one who writes and teaches from this perspective (Siegel, 2006). *The Developing Mind: How Relationships and the Brain Interact to Shape Who We Are* (2012) and *Pocket Guide to Interpersonal Neurobiology Approach: An Integrative Handbook of the Mind* (2012) are just two of Siegel’s many books that address theories and topics like attachment, interpersonal attunement and self regulation, the window of tolerance theory. In *The Pocket Guide to Interpersonal Neurobiology* (2012), Siegel defines the mind as a system from which energy and information flow and a vehicle of organization for that energy and information,

making his work of interest to this research. Siegel's work on interpersonal neurobiology almost puts a name to Glasser's theory of relationships as an energy exchange if in fact the energy is neurobiological.

Social Baseline Theory

Similar to Attachment Theory, but broader, is Social Baseline Theory, which says that humans derive many benefits from social networks and pro-social functioning. This theory came about through the evolutionary process of our species because of the "energy benefits" social relationships provide individuals (Beckes & Coan, 2011). Beckes and Coan argue that there is a base line assumption of the human brain called "a social base line" made up of social resources within close proximity. Beckes and Coan believe that the human brain is *wired* for predictable social networks. That predictability comes from familiarity, mutual attention, shared goals and interdependence. Instead of regulating emotions in the brain, this baseline state requires less emotional activation and less self regulatory inhibition, thus conserving personal energy. The benefits of Social Baseline Theory are essentially risk distribution and load sharing to regulate affect and manage metabolic resources. More importantly, Beckes and Coan ask, "Do social relationships really regulate emotions?" This theory does touch upon personal energy thus potentially of interest to supporting Howard Glasser's energy exchange theory.

Neurosociology

The understanding that the social aspects of ourselves are found in the "physical, biological and social world" (Heinskou & Liebst, 2016, p. 354). Also, studies of the social neurosciences are finding social phenomena originates in neural processes (Shkurko, 2012). If the theory is true that every social phenomenon can be traced to a specific neural process per Shkurko (2012), who justifies using neurophysiological data in clarifying sociological questions,

then the same should be true in answering our question about looking to the source of the energy as it is exchanged through social relating.

Methods

This paper is a systematic research review which sought to answer the specific questions: Are relationships an energy exchange and therefore drive the behavior of “intense” children to seek a deeper connection with their parents? Also, how this information would impact therapeutic approaches to families in crisis with a child diagnosed with behavioral disorders by focusing in the interpersonal interactions instead the problem being the child’s alone (Scarmella & Leve, 2004; von Suchholdoletz, Trommsdorff, & Heikamp, 2011). This systemic review attempts to identify, critically evaluate and integrate the findings of each study applied toward the previously stated research question (Siddaway, n.d.).

The goal of this literature review was to synthesize the work of those in the field of mental health, social work, child development, psychology and psychiatry, and sociology, all of which have put forth their theories and tests indicating the possibility of energy exchange through both qualitative and quantitative scientific evidence. Approaching research from both perspectives is not usually recommended, because of the difference in philosophy and methodology making them hard to fuse together (Ritchie & Lewis, 2003). Yet Ritchie and Lewis (2003) are of the mind that it can be very beneficial if the two approaches and the findings can be clearly delineated. Because each of the approaches offers its own distinct form of evidence, they argue that the two together are a more powerful way to highlight information that can inform change in policy or practice.

Data Collection

Various sources and databases were accessed to examine research within the last 30 years compiled to support the idea of “energy exchange” as an important human component of the relationship dynamic not only between parent and child, but also that could also be extended to therapeutic relationships and to larger social interactions. Primarily journal articles, textbooks and books from disciplines primarily outside the study of human behavior were examined. As mentioned previously, research from the studies of neuropsychology, neurosociology, psychology, neurobiology, psychiatry, human development and philosophy were utilized. Other alternative material in the form of webinars, videos or Power Point presentations from conferences, and websites constituted a small percentage of material viewed.

The following key terms were used to search for data to support the thesis: Mirror neurons, attachment and dysregulation, emotional energy, energy psychology, social engagement, social engagement system, relational neuroscience, parent-child attachment/attunement, externalizing behavior, neurobiology and relationship, neglect and attunement, neglect and conduct disorders, interpersonal attunement, self-regulation, affect regulation, interpersonal connections and neurobiology.

Data was collected from PsychINFO, SocINDEX, University of St. Thomas Library CLCK search, Ebsco, ProQuest Dissertations, Google Scholar, and National Institutes of Health PubMed and the Web of Science Prisma flow chart (2009).

Data analysis

Research was approached in a manner of Deductive Qualitative Theory (DQT) as described by Jane Gilgun (2014). DQT is theory guided research. This theoretical approach starts with the theory that relationships are suggested to be an energy exchange. This research theory

makes use of sensitizing concepts. The concept of Sensitizing Concepts was introduced by Herbert Blumer in a paper he presented in 1954 to the American Sociological Society arguing that not all theory has to be proven through empirical science. He argued that concepts are the “appropriate way” to explore theories and question facts, which are the only way to connect concepts with the empirical world (Blumer, 1954). Blumer called the concepts of Sociology “sensitizing instruments” and puts them in juxtaposition with definitive concepts; that which is common to a class of objects based upon clear definitions in terms of certain attributes. The sensitizing concepts lack clear attributes (Blumer, 1954). They provide a general sense of reference and guidance, instead of precise prescription when reviewing data. They suggest the directions to look in (Blumer, 1954). Sensitizing concepts flush out important features of social interactions, which may be applicable to the ideas in this paper of energy exchange (Bowen, 2006). Gilgun (2014) advocates seeking to add dimensions to “sensitizing concepts” while weeding out old concepts for new ones (2014). This approach works best because there aren’t specific characteristics used in the data, but the researcher gets a general sense of being referred and guided (Bowen, 2006). The precision of understanding is brought about by the development of a richer and better understanding of what the concept guides one to conclude. Some sensitizing concepts in this paper are:

- 1) Primary care takers of young children create an environment that molds their children’s brains for pro-social reasons
- 2) Children are wired to get an interactive exchange from their care takers to help regulate their emotions and gain a sense safety
- 3) Children gain a sense of themselves through their primary care takers engagement with them

4) Children will intensify their behaviors in order to get their social engagement and internal regulation needs met

The data has been compiled and catalogued using an article reference sheet. This helps organize information into catalogues based upon the following questions: research question; sample; how data was collected; the type of data collected; how analyzed; findings; conclusions; limitations and implications for the research.

The process of the systematic review was to sort through, evaluate and apply the data found in journal articles and other published sources in order put forth evidence in a systematic way to answer the questions previously stated. The systematic review's intent was to contribute to the conversation around the topic of relational exchanges as energy as it applies to the partially unsubstantiated parent-child training program, Nurtured Heart Approach. This research sought to put forth new possible perspectives on the topic with the purpose of contributing to NHA's goal of becoming an evidenced based program, thereby creating greater validity in the minds of many who believe it is best to use evidence based treatments and programs.

Findings

Glasser (2013) presents energy as that which animates us, whether it is becoming angry, excited, enthusiastic or connective:

Adults tend to be most animated and available under problematic circumstances. Such circumstances generally yield instantaneous and deep connection and relationship. The energy they [children] receive in response to negative behaviors many not be in the form of angry outbursts; it may be more subtle, as in the case of a kind and loving admonishment or heartfelt discussion (p.30).

The following table documents the compiled resource used to research the question of energy as a relationship. The majority are peer reviewed articles:

Table 1. Systematic Literature Review

| Sample | Area Of Study/ Key concepts | Key Areas of Support | Limitations /Weakness |
|--|--|---|--|
| Oppenheim, D., & Goldsmith, D. (2007). | Attachment Theory | ADHD, Oppositional Behaviors / Intervention for young children's social emotional problems should focus on the attachment care giver systems | Did not refer to energy or energy as an exchange in article |
| Arnett, Roach, Elzy & Jelsone-Swain (2018) | Mirror Neural System Empathy | Effects on brain when childhood emotional invalidation occurs | Does not address energy exchange directly |
| Mikulincer and Shaver (2005) | Attachment Theory | - John Bowlby Emotions and relationship How attachment related strategies shape a person's emotional state during positive and negative transactions. | None |
| Rayan & Fredrick (1997) | Energy /Personality Psychology | Defining Psychological Energy and vitality; Energy and self organization and regulation. Relationship between psychological health and energy | None |
| Kemper, Theodore D., (1990) | Sociology of Emotions | - Dynamics of power and status related to emotional energy. - How emotional energy levels can make one feel alienated or part of the group; successful group interactions contribute to high emotional energy and converse is true - Disruptive emotions from baseline emotional energy | Theory is not about family dynamics per say, but to groups of people like religious congregations, sports fans or other places where ritual is involved; any group social setting could apply. |
| Luke, Sedikides, Carnelley (2012) | Attachment theory | Energizing impact of secure relationships on personal energy and exploration -Focus on negative emotions from those with attachment insecurity Luke, Sedikides, Carnelley (2012)- Findings that secure relationships increase felt energy. - Findings that secure relationships predict willingness to explore | -Study created to test effect of secure attachments on the energy of adults. -Collected data over the internet - Only chose females as participants |
| Crittenden & Kulbotten (2007) | Attachment and ADHD Parent Child Interaction | Advocating psychological /environmental factors shape | One case study only to guide a hypothesis and |

| | | | |
|---|---|--|--|
| | Child psychology | neurological development to produce ADHD symptoms. | suggest future study of how insecure attachment and disorientation could lead to ADHD symptoms. |
| Scaramella and Leve (2004) | - Attachment and The Early Childhood Coercion Model Emotional Regulation - Parental education - Parent Child Interaction | -Emotional reactivity of child reinforces negative, harsh response of the parent. -Toddler /pre-school parent child interactions influences emotional regulatory capacity - Addresses more the type of child NHA is designed for: Oppositional Defiant Highly Reactive Intense Emotions = energy | No focus on the topic of energy. |
| Feldman, Gordon, Infuls, Gutbir, and Ebstein (2013) | Parental Oxytocin and Early Caregiving Jointly Shape Children's Oxytocin Response and Social Reciprocity | Argues that Oxytocin is the powerful drive behind bonding. Argues genetic basis for responsive and sensitive parenting. | Small sample size and mild to medium correlation. Did not point to correlation of oxytocin release as a driving factor to seek an energy exchange. |
| Fishbane (2007) | Interpersonal Neurobiology | -Hebb's law: Wiring and firing together -Evolutionary perspective - Mutual interaction release of Neural chemical and shapes both brains -Resonance circuitry & social circuits of the brain | None |
| Praszkie (2014) | Mirror Neurons; Empathy; Embodied Simulation; Synchronization; Social and Neuro-Synchronization | During "joint action", people become "implicitly" coupled at motor, perceptual and cognitive levels. Energy exchange can be inferred. Energetic concepts: "physiological tension and release" and the communication through rhythm and connectedness through neuropathways. | Energy is directly mentioned only once in the introduction. |
| Ginot (2012) | Self-narratives, attachment, dysregulation, neuropsychology, attunement and intersubjectivity; Neuropsychology | Mirror imaging and attunement in the process of parent-child relationship; Neurological process. This article enlightens the narration process of NHA and why it works. | Does not talk about energy directly. |
| Ginot (2009) | Empathy; interpersonal communication; enactments, neuroscience | Neuropsychological processes that can both form and buttress enactments and empathy. The article's use of therapeutic | Does not talk directly about energy |

| | | | |
|----------------------------|--|---|--|
| | | enactments demonstrates a potential for the healing power of empathy in parent child relationships. | |
| McVeigh (2015) | Mirror Neurons, cognitive science, joint attention schemes | -History on the discovery of mirror neurons -Use of the word “activate” multiple times with “mirror neurons” -Asserts mirror neurons demonstrate evidence of physiological system and a precise neurological mechanism enabling the communication of others | Does not talk directly about energy exchange directly between people. But the mirror neurons demonstrate the social and sociological meaning behind an energetic relational exchange. |
| Boiger & Mesquita (2012) | Psychology; Social Interaction; Relationships; Emotions | - Emotional interactions are always within the context of relationships - Interactional sequences of attuning; sharing; correcting; proposing. - “Emotional Convergence” | 1. Points out the difficulty in studying an emotional interactive process. 2. Do not share the perspective of emotions as a chemical process alone but come out of social contexts 3. No mention of energy |
| Pines (2003) | Psychodynamic and economic sciences; Mirror Neurons; evolutionary biology | -Resonance -Clear definitions of terms - Intersubjectivity -What happens in the brain in connections with environment - Neuron discharging an action | Deals more with the group dynamics and mirroring instead of one on one relational interaction, but is mentioned in the developmental context. |
| Van der Kolk (2014) (2003) | Psychiatry; Child-trauma; Neurobiology of trauma; attachment and trauma | -What is attunement - relationship between attachment and the brain and inner subjectivity explained - the use of emotions to process stimuli and -disregulation Affects of Trauma on children and attachment with adult care giver | Does not deal with energy exchange in relationships, but how to help heal trauma, dysregulation and repair parent-child bond to create a sense of safety. |
| Fishbane (2007) | Neuroscience; interpersonal neurobiology; Therapeutic uses of Neuroscience | -Relationships / social circuits -Emotions -Brain/ neurochemical/wiring/firing -Mindsight / Empathy -resonance circuitry | Addressing Family and marital therapists. Applications suggested for therapeutic relationship might be reversed and applied to parent child relationship |

| | | | |
|--|--|---|--|
| Keyesers & Gazola (2006) | Neural theory of Social Cognition | “single mechanism” = Shared circuits Hebbian learning Mirror Neurons | Abstract only |
| Mullins (2007) | Neuroscience; virtues and character formation; Mirror Neurons; empathy | -Touts discoveries of Neuroscience - Electrical activity of the brain cells - Biochemical pathways | None Uses term electrical in terms of brain activity. |
| Beckes & Coan (2011) | Social Baseline Theory; Social Psychology; Social Neuroscience | Social Relationships save energy -Attachment theory - Neural resource management -Social Relationship provides benefit of emotional regulation | No case studies or direct research to support theories |
| Fitness (2015) | Personality; Social psychology; Emotion Theory | The function of emotions in relationships | Relates more with adult relationships |
| Lougheed, Koval & Hollenstein (2016) | Interpersonal Emotion regulation; Social Baseline Theory; | Energy conservation in the form of emotional/psychological support when threats are near and burden stress is shared. | Difficult to interpret study in the way it was written and use of unfamiliar mathematic notations |
| Codrington (2010) | Family therapy with adolescents; implicit memories and reactions; Interpersonal neurobiology interventions | An interview with Dr. Daniel Siegel pertaining to applying interpersonal biology to family therapy and working with adolescence. | No studies; an interview; information based on one man’s vast knowledge of theory, neuroscience and therapeutic techniques |
| Siegel (2012) | Interpersonal Neurobiology | Scientifically based on research. Exploration of the mind, brain and relationships; Uses the idea of energy in regards to relationships. | A lot of information and more wisdom than could have been used in this study |
| Zhi-Ying and Qi-Shao (2007) | Physics | Simulated neural firing patterns Symbolic of Neuronal models using voltage clamp data | Not from human data |
| Von Sucholdoletz, Trommsdorff & Heikamp (2011) | Social Development Child self regulation Positive parenting Responsiveness | Reciprocity Parental warmth contribution to child’s development of self regulation. Mother’s responsiveness to distress. | Explains NHA’s success. Not expressing energy exchange, but an exchange is there |
| Ogden, Minton, Pain (2006) | Polyvagal theory Social engagement theory | -Sympathetic and parasympathetic responses - Hyper arousal Emergency reactions and mobilizing energy and energy consumption | Good for back ground information on Poly Vagal theory, not about energy exchange. |
| Heinskou & Liebst (2016) | Polyvagal theory Rhythmic entertainment Emotional contagion | -Feelings of solidarity Interaction ritual -Social engagement system | Uses a term, face to face interaction dynamics, but nothing |

| | | | |
|--------------------|---------------------------------|---|---|
| | | Evolutionary perspective on emotional communication | related to energy exchange |
| Maroutian (2017) | Psychology Education Philosophy | Emotional Environments (not included for research, but anecdotal support) | Non-academic book: Supports Glasser's theories, but no support for her assertions. |
| Kirshenbaum (2003) | Emotional Energy | -Raising one's "inner energy quotient" -Harnessing Emotional Energy (Not included in research but anecdotal support) | Non-Academic book: Based on professional experiences as therapist offering case studies, but does not provide outside sources |

Children are the picture of vitality. Ryan and Fredrick (1997) connect "subjective vitality" to feelings of personal energy. That personal energy is related to the ability to move or create or influence something or someone. It is the ability to affect something and knowing as a person you are the agent responsible. Think of a toddler who insists on doing something themselves and melts into a demonstration of emotion when that agency is taken from them. Indeed one's subjective vitality can be diminished when we are hindered and we can't gain competency. The vitality of children is captured in the words of author and psychotherapist and researcher, Mira Kirshenbaum (2003) when she writes: "That child's happiness, intensity, resilience, playfulness, and curiosity are signs of high emotional energy" (p.37). Author, philosopher, and psychological educator, Emily Maroutian, philosophizes: "Energy is the creative force of the Universe. . . Emotions are powerful movers of energy because emotions are personal facts" (Maroutian, 2017). Maroutian (2017) believes that one's emotions indicate energy flow and connects emotions with physical action and energy; not unlike Ryan and Fredrick's (1997) theory of agency.

Affect is a word used to refer to an emotional state. In this paragraph, and throughout the rest of the paper, "affect" is defined as a personal presentation of a mood or emotion through

facial expressions, tone of voice or body language that is evaluative of something positively or negatively (Westen, 2001). Luke, Sedikides, and Carnelley (2012) pointed to earlier research on the connection between personal energy and secure relationships and positive emotions. They include Watson and Tellegen's theory that energy can be represented on an affect spectrum called the Consensual Model of Affect. The Consensual Model of Affect states there are two affective states of opposing value within a spectrum of affect: positive affect (pleasant emotions) and negative affect (unpleasant emotions) (Ryan & Fredrick, 1997; Westen, 2001; Luke, Sedikides, & Carnelley, 2012). Watson and Tellegen (as cited in Luke et al., 2012) thought energy was positively correlated with a high positive affect. Regarding the Consensual Model of Affect, energy is considered reflective of "highly aroused mood states" (Luke, Sedikides, & Carnelley, 2012, p. 722) If one thinks of children, this statement seems true. As Kirshenbaum writes, we all start out as high energy people; "exuberant and effervescent" (Kirshenbaum, 2003, p. 37). In this paragraph, and through the rest of the paper, "affect" is defined as a personal presentation of a mood or emotion through facial expressions, tone of voice or body language that is evaluative of something positively or negatively (Westen, 2001).

Maroutian's (2017) book on emotions compliments Glasser's (2013) assertion of energy as a force in relationships. Ryan and However, parenting education handbooks like Stop and Think or Nurturing Family Skills (Bavolek, 2007) depict emotional energy as something that is about affect and expression of energy. Ryan and Fredrick (1997) would agree that anger is an expression of energy, but not one that expresses subjective vitality and does not deal with emotional energy. Yet the Nurturing Family Skills program does instruct parents to educate their children on how to appropriately express their "emotional energy." The Nurturing Parenting curriculum handouts in particular teaches parents that anger is an energetic force that needs to be

expressed by getting energy out in a positive way, like through exercise (Bavolek, 2007).

Bavolek (2007) also shares empathetic parenting in such a way as to depict it as a gentle and nurturing action taken toward children. Such parenting curriculums are meant to encourage an improved attachment bond.

Attachment

The bases of attachment models, as put forth by pioneer researchers John Bowlby, Mary Ainsworth, and others, explore the connection between attachment and the expression or suppression of emotions. Maroutian (2017) writes, when emotions are resisted, denied or not allowed, it blocks energy. According to Oppenheim and Goldsmith (2007), John Bowlby wrote “his seminal paper” in 1979 on this subject entitled, “On Knowing What You Are not Supposed to Know and Feeling What You are Not Supposed to Feel” on the enduring harmful effects of denying a child’s reality. If we agree with Bowlby and Maroutian (2017), then reality *is* emotionally based. Just as many therapists who work in the area of attachment are influenced by John Bowlby, most therapists who work with trauma sufferers would see how Maroutian’s descriptions of blocked emotions resonate with either hypo- or hyper-arousal of trauma effects, leading to disrupted attachment. Maroutian (2017) points out the importance of learning about emotions in order to find your own ease and relief from them, which is known as “self-regulation.” Children look to parents to provide that relief until maturation and grow into learning self emotional regulation (Mikulincer & Shaver, 2005). That process is reliant on a secure attachment to a care giver (Mikulincer & Shaver, 2005). How available a care giver is to a child who needs help in alleviating distress and feeling protection is what creates a type of attachment; secure, avoidant or anxious (Mikulincer & Shaver, 2005). Mikulincer and Shaver (2005) write about the behavior associated with the perceived unavailability of a primary

attachment figure as resulting in “energetic, insistent attempts to attain proximity, support and love.”

Attachment theory asserts there is an interchange between the ability of a parent to be sensitive in response to the needs of their child and the child’s emotional response to the parent (Scarmella & Leve, 2004). A secure attachment for a child comes from something called “attunement” which starts with the parent-infant bonding process (Fishbane, 2007). This is a process of joining thought and feelings through a process called “emotional resonance” and “non-verbal synchrony” (Fishbane, 2007, p. 402). Siegel (2012) refers to an attunement process as an ability to tune into one’s internal world and another’s. It is also, “the way we focus on the flow of energy and information in an open and receptive manner” (Siegel, 2012, p. 23:1). Siegel goes on to explain, when the process of joining is done with respect and care, it leads to what is called a secure attachment, instead of an insecure/anxious or avoidant attachment. This fits with Ryan and Fredrick (1997) assertion that energy is a psychological experience reflected in enthusiasm and spirit that they see as vitality. Luke, Sedikides and Carnelley (2012) and Mikulincer and Shaver (2005) would find agreement with all of these statements about attunement, even though Luke, et al. (2012) and Mikulincer, et al. (2005) studied adult couples and relationship. Their articles start with patterns that begin in childhood, making it relevant to our discussion on relationships as an energy exchange. Even the discussion with adults is applicable to clinicians using it with clients in the therapeutic setting.

Mikulincer et al. (2005) looked at the positive and negative emotional outcomes and behaviors in relation to attachment theory. Luke et al.’s (2012) studies found a correlation between attachment models and a personal sense of energy along with a correlation between behavior and personal energy in response to their adult relationships. Luke et al. (2012) observed

the connection between feelings of security and support in one's attachment and an increase in energy, thus proving their hypothesis that possessing a sense of energy as being necessary for exploring one's environment. This is true for children, as well, with secure attachments to their caregivers (Scarmella & Leve, 2004). Their general findings with adult couples were secure attachments energize partners, thus encouraging an environment of exploration. Luke et al. (2012) hypothesize that the converse is also true: Adults with higher attachment anxiety expend more energy to inhibit the activation of behavioral systems known as a "hyper-activated attachment system" (Luke, et al., 2012) and thus would have less energy for other things in life like investing in relationships with children or partners.

An example of the inverse of Luke et al.'s (2012) findings is given by Crittendon and Kulbotten (2007). They present a case of a mother and her son to support their hypothesis that ADHD is a disorganized behavior resulting from the parent's own disrupted anxious type attachment behaviors. Crittendon and Kulbotte (2007) look to the Dynamic Maturational Model (DMM) of attachment to measure both the parent and child's interpersonal organization of behaviors. They argue that children create attachment strategies to garner support, comfort and protection from their caregivers. Likewise, parents use attachment strategies to protect and comfort their children, a partner, and even themselves. Crittendon and Kulbotte (2007) validate looking at the adults' attachment styles as Luke, et al. (2012) and Mikulincer, et al. (2005) did in their studies. All of these studies of attachment patterns demonstrate or describe a definite relational exchange which may support Glasser's hypothesis of a child's need for an energetic exchange. Crittendon et al. (2007) would possibly argue that it is the quality of the energy that is being exchanged. An anxious, disorganized form of attachment, or form of energy exchange, for

the sake of the argument, seems to produce the disorganized behaviors in an ADHD, oppositional child.

Glasser writes: “To some extent, every child is wired to try to connect energetically with adults. Some children need more energy association than others” (2013, p.35). Those that study attachment call the increased energetic attempts at proximity *hyperactivating strategies*. An emotional response that is negative and increasingly intense is reported as one particular strategy to gain proximity and make a connection (Mikulincer & Shaver, 2005). Indeed, Mikulincer et al. (2005) assert that close relationships are associated with emotions. Everything from gratitude, joy, love, pride to jealousy, hatred, fear, disappointment, etc . . . can arise out of relationships. If we look back at Maroutian (2017) and Ryan et al.(1997), we can associate those emotional interactions or reactions in terms of energy.

Mikulincer et al.’s (2005) researched adult relationships and the effects from childhood attachment patterns on those relationships. They write about attention seeking behaviors that might be considered ADHD, or as Oppositional Defiance. Mikulincer et al. (2005) explain how the anger and tantrums come from not getting “innate psychobiological needs met”, thus possibly explaining Glasser’s hypothesis of a child’s need for an energetic exchange from the primary attachment figures. Scaramella and Leve (2004) look at the “Coercive Interaction Cycle” acted out as intense hostility and negative emotional exchanges between parent and child. Their concern is for parent-child exchanges that are characterized by intense, negative emotionality, putting children at risk for problem behaviors as they mature. This fills out Mikulincer et al.’s research. More so is the interest in the description of “emotional exchanges.” Having established anger and emotions as a form of energy, this terminology reinforces Glasser’s idea of an energy exchange.

Fishbane (2007) also brings in the element of adult relationships when looking at the attachment between parents and their children by pointing out, similarly, how two parents in conflict can trigger physiological distress signals within their bodies; an increase heart rate, or raised cortisol levels, thus causing an emotionally dysregulated style of communication to their children. Fishbane (2007) points out that this can be communicated without direct discussions, but through empathy.

Neurobiology

John Bowlby described the attachment mechanism as a function of neurobiology executed to promote a person's survival with different styles of attachment representing strategies for perceived threats (as cited in Crittenden & Kulbotten, 2007). Fishbane (2007) explains attunement as including neural processes from the "low and high road circuits" (p. 402). The Amygdala part of the brain is being referred to as the emotionally reactive low road, while the high road of reason is processing information through the Medial Prefrontal Cortex (Van der Kolk, 2014). In the scientific disciplines that look at neurology and cognitive functioning, the term "circuitry" is often used to refer to the neurological connections made in the brain and utilized by the body. Clearly, when we read the word circuitry it conjures up images of electronics or an electrical grid used to move currents of electricity to produce or utilize energy with the outcome of giving off heat or light or to produce an action. Many in the field of social sciences are familiar with the expression established by Donald O. Hebb (1904-1985) stating: "Neurons that fire together wire together" (as cited in Fishbane, 2007; Calbet, 2018). Consider the following use of terminology in a quote taken from Fishbane (2007):

"There are trillions of neuronal connections in the human brain: it is considered the most complex entity in the universe. These connections form neural circuits and the activation

of these circuits in different parts of the brain gives rise to thought, emotion, and action”
(p.396).

Mc Veigh (2015) assert. ” . . . there are neurological systems that underpin the connection between the self and other”, which could be inferred to mean neural circuitry (p.46). The circuits also give rise to synchronicity between parent and child during the attachment process. Praszkie (2014) extolls the wonder of what happens between two people when they communicate; the synchronization of two brains. Praszkie writes the process of brain-to-brain communication “looks exactly like a wireless communication system in which two brains are coupled via the transmission of physical signal (sound, pressure, or chemical compound) through the shared environment” (p. 13). The reader can almost see in their mind’s eye the transference of energy.

Fishbane (2007) points out how humans are wired for love, as well as for connection, by citing a study that looked at the brain of couples in love by using a fMRI machine. The brain images showed activation in the pleasure and reward systems areas. The pattern looked the same as it were a brain effected by the drug cocaine. Similar to withdrawl from a drug, there is a painful response when “the lover” is no longer available (Fishbane, 2007). Fitness (2015) clarifies the difference between lustful love and romantic love for a partner. She clarifies the areas of the brain and the chemical reactions involved. Passionate love pertains to having sexual desire for someone but does not necessarily move to attachment love. Passionate love involves gonadal estrogen and androgens associated with a drive for sexual relations while attachment love releases the brain chemicals oxytocin and endogenous opioids (Fitness, 2015). While attachment love is included in romantic relationships between partners committed to one another (Fitness, 2015). Fitness clarifies that love for a romantic partner and love for one’s child are examples of attachment love. Replace the word “lover” with the word “mother”in regards to

the study of the brain scans written about by Fishbane (2007) and you might get a picture of the Mirror Neuron System (MNS) and what it can produce between a mother and her infant, or young child. Just watch a mother stroke her child's head and look lovingly at the child as the child looks back with a content smile as they nuzzles into her lap. Both mother and child are soothed. This is an example of two brains attuned and synchronizing without regard to what is communicated (Praszkie, 2014).

But one way to obtain brain-to-brain attunement is through the expression of language. It is actually the rhythm of communication understood as the timescale of the speaker's syllabic production instead of anything technical like grammar or vocabulary. Watching a person's face and mouth enhances the connection (Praszkie, 2014). Glasser (2016) also talks about children tuning in to "the texture" of the voice that is beneath the words. He likens it to a current below the surface of the water.

It might be argued there is mutual chemical reaction in the brain caused by a very real kinesthetic and emotional (energetic) exchange. Mullins (2007) quotes an uncited sources as stating, "Of all the discoveries that have poured out of the neuroscience labs in recent years, the finding that electrical activity of the brain cells changes the physical structure of the brain is perhaps the most breathtaking" (p.29). Developing an understanding of what sets the electrical activity in motion is on going. One area of research where we find such understanding is in the study of mirror neurons.

Mirror Neurons

The understanding of mirror neurons are still relatively new. The mirror neuron system (MNS) was discovered by accident in 1990's by the Italian scientist, Giacomo Rizzolatti, who was working with monkeys to understand a part of the brain known as the F5 region to determine

which neurons fire when grasping movements were initiated. Rizzolatti noticed that area of the brain was activated in a monkey who was not grasping anything but was observing another monkey who was grasping some fruit (Divino & Moore, 2010; Praszkie, 2014; McVeigh, 2015). Others tell the story that it was Rizzolatti's action of grasping and licking an icecream cone himself that the monkey observed as he came back from lunch and saw the same part of the brain lit as if the monkey were grasping something. Regardless of how Rizzolatti made the discovery, Rizzolatti is quoted as saying about mirror neurons: "These systems allow us to grasp the minds of others not through conceptual reasoning but through direct simulation, by feeling not by thinking" (as cited in Mullins, 2007, p.30).

The MNS is believed to have been a pre-language, evolutionary way of passing on information in order to learn how to do something. It has since been realized that mirror neurons are important in the development of our minds as infants and children through the internalization of gestures that then get replicated (McVeigh, 2015). Infants mirroring facial gestures right after birth are an expression of the MNS (Pines, 2003). Mirror neurons create an internalized form of simulated action that is an automatic and unconscious process, making them an indirect form of communication (Praszkie, 2014). It is an implied exchange between two people moving like, or feeling, what they are observing (Praszkie, 2014). It enables the "penetration" of one person into the world of another without thinking or making judgments about it (Praszkie, 2014, p.11). The other becomes the self. Mirror neurons give us the ability to "know another person from the inside out" (as cited in Fishbane, 2007). Mirror Neurons are involved in our capacity to share emotions and sensations with others (Praszkie, 2014). It is how we are capable of empathy. Praszkie (2014) asserts that "affective reaction" is at the center of an empathetic response (p.4). Praszkie (2014) also writes about empathy and mirror neurons as being an emotion in and of

itself; feelings of familiarity or connection (Praszkier, 2014). This is the beginning of intersubjectivity for a person. Mirror neurons teach social meaning by taking on the roles and perspectives of the primary care takers (McVeigh, 2015).

Finally, mirror neurons inform how we fit into the social group as "role-taking" moves through more abstract stages of development (McVeigh, 2015). Gaining a feeling of familiarity and connection is resonance. Malcolm Pines writes this in his article about how mirroring joins people and how it works to form us through social interactions in a process called social mirroring. In an argument for character building, Pines refers to Adam Smith (1797): "He desires not only praise, but praiseworthiness: admiring the excellence of others, we wish ourselves to own self respect" (p.508). Theoretically, a person gets to know himself by the effect he has on other people and what they reflect back to him. In theory, this motivates a person to model their behaviors after what is considered respectable.

Praszkier (2014) looks at resonance by Dr. Karen Pearlman's book, *Cutting Rhythms: Shaping the Film Edit*, who articulates how to use rhythm in film. Pearlman, according to Praszkier, explains the empathetic process that occurs between those watching a movie and what is played out on the screen and how the viewers are impacted emotionally by it. Most interesting to our discussion on energy, is the idea of rhythm. Pearlman writes about rhythm evoking an empathetic response, but also experiencing what they are watching as "an embodied, physiological, temporal, and energetic participation in the movement of images, emotions, and events in the film" (as cited in Praszkier, p. 2). This is reminiscent of a part of Glasser's approach to his parental re-education program. Glasser encourages the use of "Active Recognition" which is the narrations of what the child is doing, saying, or presenting throughout the day (Glasser & Easley, *Transforming the Difficult Child*, 2016, p. 50). The observational

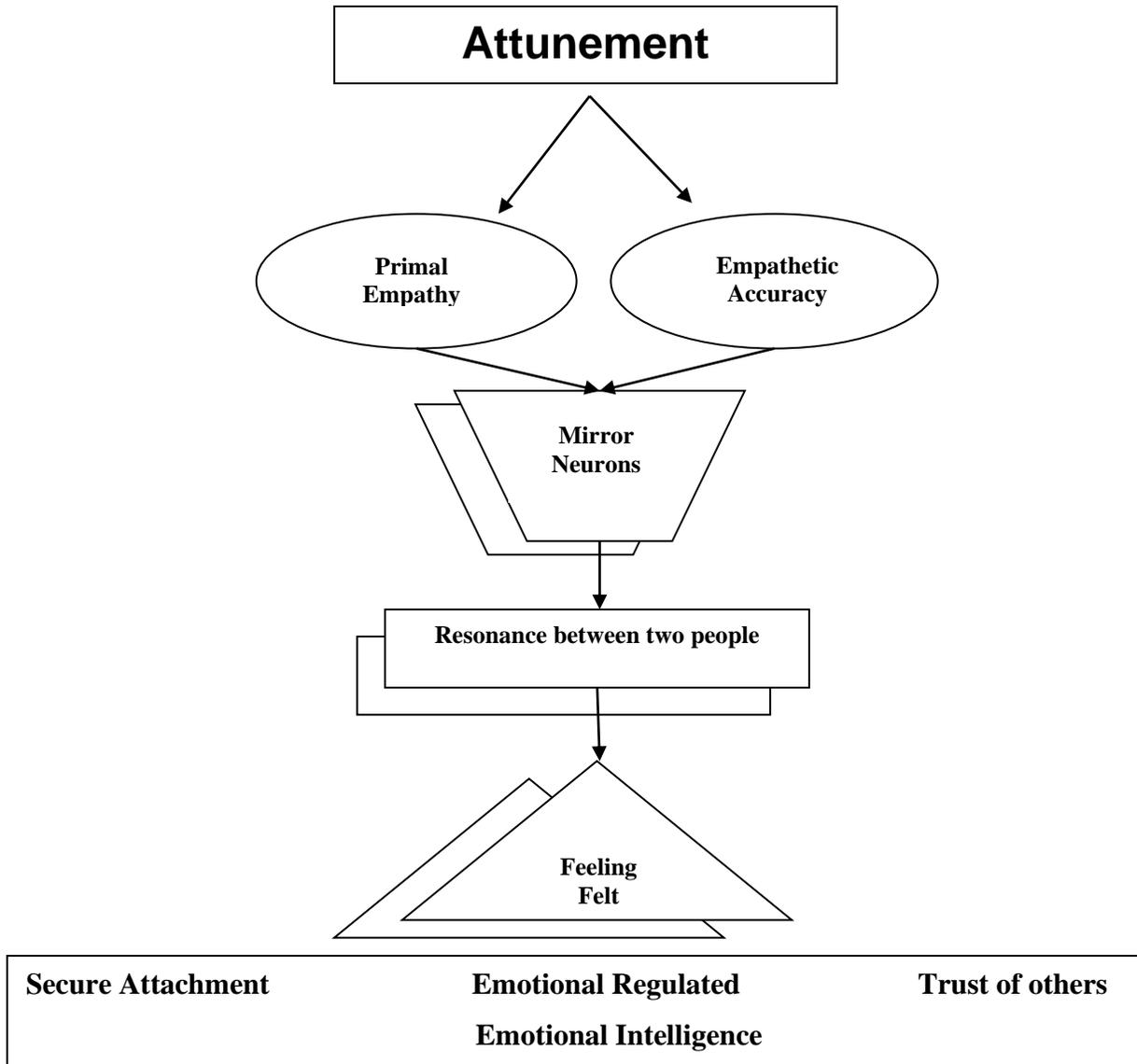
descriptions are considered verbal snapshots that might also include how the child is feeling. There are also “Video Moments” that give the child recognition and allow them to experience themselves in a positive way (Glasser & Easley, *Transforming the Difficult Child*, 2016, p. 50). The parent acts like a movie projector, projecting the storyline of the child’s life onto its own screen of the subconscious. Up until this time, the child has not been felt, seen, or experienced in a positive way through synergistic interactions with the parents and, therefore, according to Glasser & Block (2013), will not accept the traditional, “Good job”, “You are so special”, “You are amazing!” kind of positive reinforcements as believable (p 56). They don’t see it is as true. Also, this kind of feedback is achievement based, not intrinsically valued based.

*“Shine the light of your awareness on what a child is doing in a way that makes the child feel acknowledged. Rattle off what you see in your mental ‘Kodak Moment’. This conveys to the child ‘You are valuable and meaningful to me’. It’s a great way of playing hardball with the intention of ‘yes’ as it conveys deeply that the child is seen, noticed and appreciated. It is the ‘yes’ of **attunement** [emphasis added]” (Glasser & Block, 2013, pp. 54-55).*

Out of attunement comes empathy. According to Praszkie (2014), empathy is very important to parenting effectively. It provides a protective factor against the development of aggressive behaviors in children and adults (Praszkie, 2014). It is the “yes” of Neural Mirroring. It may also be the “yes” of a positive and natural energetic exchange that the child has been missing, or craves more of. Fishbane (2007) breaks empathy and mirroring down to “primal empathy” and “empathetic accuracy” (p.402). Primal Empathy is a non-verbal synchrony that occurs between two people, while Empathetic Accuracy occurs when thought and feeling come together in the mind to understand another person. Each type of empathy takes place in different

parts of the brain. Fishbane (2007) also points out how empathy requires mirror neurons. The following diagram, table 1, depicts a visual representation of the process of how attunement might be obtained in an ideal parent-child relationship and the positive social outcomes that manifest from the process. Of course the inverse is true when attunement is not achieved.

Figure 1



Neurosociology

Interaction ritual is a theory that says social solidarity is innate to humans' neurological capacity for "rhythmic entertainment" (Heiskou & Liebst, 2016). Rhythm is a repeated theme now after reading about it from Praszker (2014). Heiskou and Liebst (2016) explain how interaction ritual theory states that face-to-face interactions are more clearly understood when neurological hard-wiring influences how we act in the presence of others, which rejects neurobiology. Heiskou and Liebst juxtapose this theory with the polyvagal theory proposed by Stephen Porges. His is an evolutionary theory that takes a more in depth look at the connection between the parasympathetic and sympathetic nervous system (Ogden, Minton and Pain, 2006).

Porges created something called the social engagement system, which basically is our human default position to want to be in solidarity with the group (Heiskou & Liebst, 2016). This involves complex biological and neurological systems that control facial expressions, middle ear muscles, laryngeal and pharyngeal muscles, eye lid muscles, along with the head and neck muscles that allow for turning and tilting. All this allows us to engage in an animated way and then shift to being calm and listening (Ogden, Minton, & Pain, 2006). When the sympathetic nervous system is in heighten arousal, these systems get affected and the social engagement system becomes overridden when face with stressful or traumatic circumstances (Ogden, Minton, & Pain, 2006). This reaction turns on the energy in anticipation of possible physical activity considered to be a hyper arousal state. This threat is still ongoing, the system does not return to a normal state and stays engaged. If one member of the family has heightened anxiety or an engaged sympathetic nervous system, or a community, the rest can take that state on. Heiskou et al. (2016) call this emotional contagion which they refer to as a kind of "electricity" that echoes to create the "emotional glue" that bonds social connections together (p.58). There is

also something called the Vagal Break that allows a person to transition from positive emotions, which are considered “the glue”, to more negative states, and back. Heinskou, et al., (2016) consider this to be a potential for social disruption. They have found there is a difference in “vagal tone” between individuals that allows for one to fluently, or effectively, self-regulate and allows for good social awareness, which provides “the glue” to form stable social bonds. Many children with behavior problems struggle in this area. Porges also states that solidarity cannot come about without a solidarity producing ritual assessing the interactions to be safe (Heinskou & Liebst, 2016). Glasser (2013) asserts that intense children test adults with their behavior to see if they can contain them. They want to see if the adults can be trusted.

Boiger and Mesquita (2012) look at how the construction of emotions occur within three subtle contexts: 1) Moment to moment interactions, 2) developing an on going relationships, and 3) sociocultural contexts. Naturally, feelings and behaviors are based upon how interactions unfold. In moment to moment interactions is reminiscent of the description we have of the child acting out to gain an interaction with an adult. It also makes one think of the narration of the child’s actions in the moment prescribed by Glasser (2016), almost creating an intentional positive moment to moment interaction. One could surmise how this controls the tone of energy conveyed and exchanged. One might also see how this would create an on going relationship. As Boiger and Mesquita (2012) explain regarding sociocultural context, some may feel that having emotions, such as anger, is considered selfish and individualistic, which would be deemed bad for the harmony of the group. It is here that social construction is thought to take place and demonstrated through numerous examples by Boiger and Mesquita (2012). This takes away from the idea that there is a basic emotional need that all children have to create a balanced neurology and regulated behaviors. Arnett, Roach, Ezy and Jelsone-Swain (2018) test whether

perceived emotional invalidation in childhood influences MNS activity and how one perceives pain in other later on in life. Their study suggests emotional invalidation does affect one's neurology and ability to empathize. As we have already established, empathy is a form of emotional or energetic exchange. Arnett, et al. (2018) cite other studies supporting neuronal testing linking MNS to empathy for others in the general population making a clear connection to the impact on society when empathy is broadly suppressed.

Like Porges, Shkurko (2012) touches upon brain function and social interactions by looking at how brain processes change when shifts in circumstances or roles occur. He focuses on the part of the brain and its brain chemical released when functions of that area are working optimally. Shkurko (2012) points to the brain chemical oxytocin related to social memory, attachment and social bonding. Oxytocin is also a neurochemical that induces feelings of trust. When Glasser (2016) talks about narrating the positive attributes of a child who has not heard this kind of talk before, he states the child doesn't trust it. Shkurko (2012) says no, it is a purely an expression physiology and genetics. However, he does talk about rewards and neural pathways. Striving for feel good brain chemistry could be the driving force for children to energetically strive for connections. Fishbane (2007) on the other hand talks about being *wired* for "a push-pull" scenario that happens between people in relationships that comes from an instinctive dual and contradictory process of self protection versus the need for connection (p.397). The words "wired" and "push-pull" together give us the sense of an energetic exchange. Either way, human relationships are integral to brain development and the development of one's self concept. This is known as "intersubjectivity;" the idea of feeling felt and cannot be negated when.

Interpersonal Neurobiology

While the depth of terminology that McVeigh (2015) tried to convey can better be expressed in Siegel's interpersonal neurobiology. A concept created by Daniel J. Siegel, MD, interpersonal neurobiology encapsulates multiple scientific disciplines to answer questions about ourselves, our relationships and mind. His succinct writing style makes the complex easy to understand. He also addresses the system of mirror neurons, and gives us a better understanding of their workings through interpersonal neurobiology.

Siegel answers questions posed in an interview by Rebecca Codrington (2010) on how mirror neurons might influence interactions. Siegel reveals what has not yet been expressed in the scientific journal articles:

Mirror neurons allow you to see an intentional act in someone else and then create that act in you, so your perception is mirrored also by your action. . . . I think the words 'sponge neuron' may be a better term because you really soak in what you see, you don't become the other person like a mirror, you soak in the other person, like a sponge. So this soaking-up process allows you to feel another person's inner life. (p.289)

Just when it seems the idea of energy exchange is thrown to the side, Codrington (2010) asks how mirror neurons work between a teenager and a parent when one comes home in a bad mood. Siegel responded, "Oh, totally, and that's a beautiful way of saying it ----- it's an interactive cycle, mirror neuron to mirror neuron to mirror neuron, and if someone doesn't stand up and pull themselves out of that cycle it can become a catastrophe" (Codrington, 2010, p. 289).

Pulling families out of a cycle of bad energy exchanges through mirroring is exactly what the NHA does by giving energy toward the positive and refusing to stay in the negative dynamic.

In Codrington's article (2010), Siegel goes on to elaborate about the point of mirror neurons between parents and teens. He gives an example of an anger reaction: An adolescent son perceives the split second angry look on the father's face and becomes angry himself, but is not really sure why. With less ability to control his emotions, he starts to express the anger. The authoritative father then acts strongly to reign in his son's anger because he believes his son needs to show him respect. This scene is a perfect depiction of the negative side to mirror neurons at work between family members. It is also what Glasser (2013) means by "energy exchange" since we have already established that emotions, and especially anger, are a form of energy.

Siegel (2012) speaks a great deal about energy in his book, *Pocket Guide to Interpersonal Neurobiology*. He conveys relationships as a flow of energy and information between people. He also views relationships as a pattern of change of energy flow over time. Siegel (2012) explains how a disconnect can occur when the energy flow we communicate through "the energy of our words" is not received in a way that makes us feel connected and understood, but in fact is perceived as disrespect when "the inner reality of our feelings and thoughts are unseen . . ." (p. 2:2) Siegel goes on to explain how frustrated a person can feel when this pattern endures and there is a continual disregard for one's inner world. This goes back to Arnett, et al.'s (2018) study on emotional invalidation. From here one might make a connection between a child's angry behaviors and outburst when they don't receive this reflection of their inner reality back to them from a parent and the label of oppositional defiant or ADHD gets applied.

Siegel (2012) also address the topic of interpersonal energy from the perspective of epigenetics. (Epigenesis is the altered regulation of gene expression on the chromosome due to certain experiences like exposure to chronic stress (Siegel D. , 2012). Interpersonal Neural

biology is expressed through generational patterns of stress accumulation and passed on genetically, altering the gene expression which affects the development of the central nervous system (Siegel D. , Pocket Guide to Interpersonal Neurobiology: An Integrative Handbook of the Mind, 2012). This in turn affects one's ability to effectively moderate the release of stress hormones causing family systemic emotional and energy dysregulation and responses, hurting the overall development of healthy family patterns (Siegel D. , 2012).

If NHA could be considered as an energy modulating program, it would seem to have the potential to break intergenerational cycles of disruptive energy communication patterns since it has been show to improve not only the behaviors in dysregulated children, but also improve the feelings of control and well being in the adult care givers (See Purpose section, p.5).

Social Baseline Theory

According to Social Baseline Theory (SBT), it is “deviant” to not have positive, social relationships because humans evolved to live in groups (Lougheed, Koval, & Hollenstein, 2015). SBT asserts that group living was an evolutionary adaptation that increased survival rates due to “efficient energy management” and “the conservation of resources” (Lougheed, Koval, & Hollenstein, 2015). The concept of efficient energy management is not only to share the burden of tasks, but also includes tempering emotional dysregulation. Emotional support from close relationships in the face of threats and challenges decreases the perception of the threat. One concept shared by Lougheed, Koval & Hollenstein (2015) is the mechanism of load sharing. It is the idea that supportive social relationships lead to *energy conservation*. Important to this study is the correlation between energy conservation and relationships. Lougheed, Koval, & Hollenstein (2015) created a study to research load sharing between adolescent daughters and their mothers by testing the activation of the daughter's sympathetic nervous system (SNS). The

SNS plays a role in sensitivity to personal challenges and in the ability to handle stress and regulate emotional reactivity (Lougheed, Koval, & Hollenstein, 2015).

For the study, physiological sensors were placed on the mother/daughter participants. The pairs were given questionnaires regarding demographics and measuring the quality of their relationship. The daughters were given a task of speaking in front of others without advanced warning. Physiological measurements were taken on both mother and daughter as a baseline, then again during the speech looking for changes in physiological changes in the daughters during the presence of the mother. Results showed that the quality of the relationship between mother and daughter mattered more in bringing down signs of stress and arousal than the mere presence of the mother. The better the quality of the mother-daughter relationship the greater the measure of a lowered rate of the teen daughters' arousal response over time, and an increased ability to sooth nerves over time, along with a higher rate in mother-daughter transference of arousal dampening. "How parents communicate with children, we believe, shapes the development of the prefrontal cortex. . . [it] requires attuned communication, where parents can sense the inner feelings of the child and soothe them" (cited in Codrington, p. 293).

The transmission of emotional support and the effect on the physiology of the present family members is important when one thinks of energetic support. Families also have an intergenerational tone defined by patterns of communication that become engrained "by the repeated experiences of energy and information flow exchange patterns" (Siegel, 2012, p.2-2). The inability to sooth stress can be passed down genetically from family to family. On a macro scale, a society can also be viewed "as functioning by way of sharing of energy and information flow" (Siegel, 2012, p. 2-3). A practical application of how to down shift a group's energetic dynamic comes from Glasser and Block (2013). They explain in their book, *Notching Up*, how to

use the Nurtured Heart Approach in the classroom. They recommend teachers become emotionally neutral during negative behaviors, but supportive during positive interactions to channel the child's large energy toward success. Both parents and teacher have to become regulated for the good of the group. The following is a formula for helping the group stay regulated if one or more children or students behavior becomes disruptive: 1) Refuse to let the child in on your stress or negative feelings. 2) Breathe into and feel the energy that arises in you. 3) Use the fuel of that very energy to focus on the positives and refuse to give energy to the negative incident. 4) What rule has been transgressed? Where does the "no" lie? 5) Use that clarity to bring you back to clearer and ever deepening vision of the positives about the child and situation (Glasser & Block, Notching Up, 2013, p. 120). Glasser & Block (2013) recommend focusing on the rules set out for the group and taking the focus off the "you" message. This message seems to be about bringing the child back into the fold of the group. This goes back to Lougheed, Koval, & Hollenstein's (2015) point about evolutionary importance of the conservation of resources for the group, which in this case is the teacher or parent's time and energy. "Brains shape themselves to accord with the input they get by acting into the world" (Pines, 2003). This seems to mean: the group shapes the brain through energetic interaction, and the leaders help guide that process of how to self regulate for the good everyone.

Discussion

This paper sought to answer two questions: Can relationships defined as an energy exchange be substantiated through an interdisciplinary study of data beyond human behavior theories? Since NHA has been touted as a treatment for Attention Deficit Hyper Activity Disorder, should the idea of an energy exchange deficit between parent and child be looked at

more often by mental health providers working with children and adults who suffer from ADHD, adjustment disorder, ADHD, oppositional defiance or emotional dysregulation (Nuño, Wertheim, Murphy, Wahl, & Roe, 2018; Taperek & Ruoff, 2009)?

The first question came out of a statement written in an academic review of NHA that relationships as an energy exchange could not be proven as a theory within the discipline of Human Behavior studies (Brennan A. L., Hektner, Brotherson, & Hansen, 2016). By researching studies, journal articles and books addressing the topic of relational energy, a preponderance of evidence was found in other disciplines of study outside of the area of human behavior. In fact, there was more research and evidence that pointed to how Glasser's theory of relationships as an energy exchange is valid, than what could be presented here in this paper. This paper only skimmed the surface of what scientists have been discovering through neurological research. Thanks to the development of technology, scientists and researchers are able to see brain activity and gain a greater understanding not only of the workings of the brain and neuronal activity. Also, social sciences are now using such technology to create new areas of research like neurosociology to help us understand how we connect as people mind-to-mind culturally. Other areas that provided evidence to answer the questions posed were Interpersonal Neurobiology, Social Baseline Theory, Attachment Theory, Mirror Neurons and Neurobiology. Other areas of study not broached in this research were human chemistry and measuring emotional reactions through topographical body imaging.

How a child's energy system can get off line either through long exposure to stress, the suppression of emotional acknowledgement, long term stress, the lack of a parent's ability to provide a secure attachment to name a few. Glasser demonstrates in NHA how it is possible to

get the MNS back on line and calm the child's autonomic nervous system down through positive energetic exchange and strict boundaries to create a containment system of safety.

The biggest conclusion the reader might get from this paper is the responsibility we have in forming the neural development of our children's brains as parents, teachers, mentors, or care takers through a real connective process that is energetic, rich and reflective instead of surface, dismissive and generally lacking interpersonal interaction. It is easy to see how this has developed in our society with the use of the television as a baby sitter and now with an increase in screen time on front of computers, tablets and phones for both the child and the parent at home and in schools. The NHA program is a wake-up call to get back to basics and to begin value interpersonal one-on-one connections for the good of the kids who are suffering and for our society that is becoming more and more isolated from each other.

This paper does show how the idea of relationships as an energetic exchange could be beneficial to include into the clinician's office and other therapeutic facilities where ever children are the focus of work.

Implications for social work

The Nurtured Heart Approach itself has great implications for individuals, families and society. It is the perfect micro, mezzo and macro system and is being applied on all three levels to date.

Micro level. Family. NHA has an impact on the child who understands either implicitly or explicitly that they have a force of energy within them in the form of emotions. The understanding that success come from redirected emotions is so much better than having a child develop a self-concept that revolves around their inability to contain that erratic energy

expressed in disruptive behaviors; a self concept of inner greatness instead of being base upon failure to achieve.

Therapeutic. Social workers can apply the knowledge of emotions as energy to help parents understand what they are experiencing, and then help parents explore their own assumption about emotions or help them figure out what their own tolerance level for their own emotions are there by working on the dynamic between parent and child.

Glasser (2016) encourages changing the old patterns of how we approach children in therapy and in relationship from that of one of challenges and negatively focused to one of positively focused: success. Glasser (2016) encourages the clinician and the families to believe in the possibility of “transformation” (p.14). With the approach from the perspective of transformation, a child’s behaviors can become about energy regulation, and then clinical labels of ADHD, Oppositional Defiance, PTSD, Conduct Disorder, among other labels, can be put away (Glasser & Easley, *Transforming the Difficult Child* , 2016).

Empathy training for families could also be helpful in encouraging positive social behaviors. It builds social intelligence, and negatively correlates with direct types of aggression: verbal and physical. (Praszkier, 2014, p. 9) Praszkier states there is a something “curative” to applying empathy therapy to various disorders like PTSD (Praszkier, 2014, p. 9), so why not other childhood behavioral disorders?

Mezzo level. Something unique about the NHA approach is the assertion that this approach can be used effectively with adults as well. It becomes an entire shift in one’s approach to life and people (Children's Success Foundation, 2018). If this is true, then the application in a therapeutic setting should be clear. When we look at this compiled research in support of NHA through the lens of attachment and apply it in relation to clients in a therapeutic

setting, one realizes how the therapeutic process is an energetic exchange. Therapists can use this research to understand how a component of attachment and attunement needs to be applied in the therapeutic process. Prazkier (2014) asserts that “empathy is an essential part of the therapeutic alliance” because it allows for a more accurate interpretation of what is going on with a client (p.9). The feedback helps the client access internal states not otherwise expressed out loud. Understanding the attachment process as an energy exchange and how to use the rhythm of attachment to sooth a client or create attunement they never received now seems essential to the therapeutic process.

In regards to training for therapists, this research highlights the area of mirror neurons, pointing out how similar neural circuits could be activated in the therapist as in the patients (Divino & Moore, 2010). Divino and Moore (2010) urge the training of “observation” in students. They also encourage teaching students and therapist how use their bodies to down regulate a patient who becomes emotionally dysregulated. One example given was to teach student and therapists to take a deep breath and sit back in the chair. Divino and Moore (2010) see this as taking time and practice to engrain into their approach self-reflection and self control and but encourages the clinician to allow for the time to develop these attributes. The same skills can be offered to parents who need to learn not to get caught up in their child’s affective states, but how to reflect back an affect that could help them and their child down-regulate (Glasser & Block, Notching Up, 2013).

In regards to a systems perspective in therapy, the therapeutic exchange viewed through the lens of energy could heighten the awareness of issues in a parent’s life and how that has an impact on their interaction with their child and why their child maybe reacting as they are

effecting a change in the family system (Siegel, 2012). Siegel points out how such patterns are intergenerational (Siegel, 2012).

Glasser (2014) turns a therapeutic model for families on its head by applying the NHA approach to larger systems. Changing the thought process from behavior oriented to energy oriented has great implications for schools, daycare facilities, juvenile detention centers, foster care facilities, after school programs, - - - any where we have systems that work with children in large numbers.

Taperek and Ruoff (2009) propose in a power point presentation to other school counselors that NHA can be a very powerful tool to shift the energy dynamic in a schools to create a positive learning environment. They also demonstrated how NHA is useful in changing a diagnosis of a child who needs drugs to functions to having the label of ADHD removed from their record. Using data from two school studies they support their assertions (Taperek & Ruoff, 2009).

Macro. In particular, this researcher observes the dysregulation of children in a local children's emergency shelter for kids placed in the foster care system. Many of residents have been in unstable circumstances their entire young lives and suffer from attachment disorders expressed through dysregulated behaviors, acting out and repeated running away from the facility. Applying NHA to organizations that house and attempt some healing would do a lot in increasing the future success of these children and prevent a cycle of poverty, drug abuse, homelessness, crime and incarceration. This thought process was tried in the Pima County Juvenile Court in Arizona by offering a 16 hour workshop for first time offenders and their families Unleashing their self realization for their own success potential is good for society as whole.

Documentation of antidotal evidence is provided for success on a larger scale level by NHA on one of their web sites. For example, a large foster care agency in New Jersey, the Drake Center, reported a zero level of broken placements since 2007 with the implementation of NHA training for workers and foster parents. This is improved from a rate of 20-25% broken placements before (Difficult Child, 2015).

The Albuquerque Department of Senior Affairs is using the NHA method in their overall health and well being program and with their Grandparents Raising Grandchildren (Difficult Child, 2015) Court records showed a 45% improvement in recidivism rates compared to their other programs rehabilitation programs used by the courts. Also improved was the lack of increase in severity of crimes committed by those who went through the NHA workshop compared to those who did not (Difficult Child, 2015). They also point out the 18% recidivism rate that occurred vs. the normal 32% rate is has statistical significance of .00001 (Difficult Child, 2015). The only thing they could attribute this to was the application of NHA.

With enough antidotal evidence of success demonstrated in various local and state systems, a greater impact could be made by the implementation of NHA through national governmental departments such as the Department of Education, Department of Justice and the Department of Health and Human Services, which approves state level programs for funding through Medicaid. Currently they fund only evidence based programs. Thus the need to continue to provide more research on the impact of NHA to get it to the level of evidence based for a more pervasive application across multiple systems.

Strengths and Limitations

One potential limitation to this study was lack of observable evidence of energy outside of brain and body scans to prove relationships are an energy exchange. However, in the

exploration of other theories, support for Glasser's (2016) theory did become evident, supporting the purpose of this study. In the absence of direct, observable scientific evidence, the published literature surrounding theories of possible manifestations of an energy exchange stands in its place. Therefore, a systematic research review was an appropriate method to answer the research question.

In the search for data, there were some contrary arguments of the nature of our human energy. The articles were then easily sorted between those who wrote from the perspective of emotional energy that can be traced back to neurological circuitry and chemicals. Besides the one statement that relationship as energy cannot be proven in the human behavior discipline by Brennan et al. (2013). There were no contrary statements, or theories, viewed an outright rejection of the theory of relationships as an energy exchange as asserted in this paper.

However, questions did arise while reading the research material on whether the Nurtured Heart Approach's assumption behind children's desire to engage the adults in their lives as "the most interesting toy" in the room isn't too simplistic and misleading. It assumes the desire of the child is to test the physic formula: to every action there is a reaction. The research seems to point to a much deeper, more fundamental, biological and neurological need for children to engage their parents. Howard Glasser's Nurtured Heart Approach may very well fulfill that need by helping parents and others become more aware of something that we don't even think about in our surroundings, let alone neurologically, chemically or biologically as part of our human experience. Energy is not seen, so we take it for granted and don't try to define it.

Pulling from a variety of fields of study and expertise has proven to be a strong aspect to the approach of this study, helping to make the case for relationships as an energy exchange.

However, it only begins to address the nature of theory of relationships as an energetic exchange between children and their care takers. Further research needs to be done to show a measureable physiological difference of children before Nurtured Heart Approach and after the Nurtured Heart Approach in order to understand better what need truly is behind what drives the intense child with ADHD or oppositional defiant behaviors whether it is biological or chemical or energetic. And to answer the question, does the change in quality of energy received by the child change their biology, chemistry and neurology and can those changes be documented through a SPEC scan, fMRI or testing of neuro-chemical?

Conclusion

By looking at research in areas of attachment theory, mirror neurons, neuropsychology, interpersonal neurobiology, social baseline theory and neurosociology, we can conclude this research does support the validity of Glasser's assertion that relationships are an energetic exchange. The research relied heavily on linguistics to guide the path toward evidence; looking for words that were synonyms for anything that implied energy as we know it in the material world and then applied it to neurological functioning.

Beyond words to demonstrate a correlation of reality, this research clearly revealed the importance of an energetic exchange in human development. Part of this energetic exchange and the drive to get it, is in order to feel felt; to develop a self-concept. The best term used to express this process was by Fishbane (2007) as human's being wired for a push-pull interaction. This can't be done without others who reflect the best and the worst part of our selves back to us. It is even more true as a child grows and develops. Children need a secure attachment to a care giver to help moderate their emotions which effects energy regulation and therefore behaviors. Their behaviors are drivers to get their needs met for protection and comfort, which often look like the

behavioral diagnoses given to them, like ADHD. We found that Glasser's reframing these diagnoses do fit into his theory of the lack of need for energy exchange not being met.

What this research shows us is that we are not individual and isolated brains, but our brains are linked to each other. It shows we cannot lead healthy lives without human contact. We are genetically and evolutionarily wired to connect as children to our families, friends and communities for survival and ultimately to thrive. It is through the evolutionary mirror neuronal system that a person learns empathy, which enables such connection. We have learned from the research when a child is denied their internal reality through an empathetic response and the engagement of mirror neurons, the development of mental health problems occur later on in life including emotional and energy dysregulation.

The research shows how we are wired to connect with people and the energy we get from those interactions impacts the developments of our brains which continues on into young adulthood (Sowell, Thompson, Holmes, Jernigan & Toga, 1999). Hopefully this research gives us a greater understanding that we are all containers of energy and have a choice on how to use that energy in our relationships. It is important not only for shaping the development of children, who are "energy challenged", and act out intolerably, but in local institutions and in everyday relationships. In fact, by the research presented in this paper, it is clear that intense children with behavioral problems need focused attention in the area of attachment, attunement, and empathy to develop an emotionally healthy and balance adult. Teaching children and their parents how to focus a child's intense energy to the positive for optimal impact on the world is for everyone's betterment.

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Appendix A



PRISMA 2009 Flow Diagram

