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Advocating the need for neuro-informed working with intercountry adoptees

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ABSTRACT

Background: Intercountry adoption is declining and many adoptees at any point of their life are in search of therapeutic services. Specialized care is scare and regular services seem to be missing the point. Regular therapeutic services do not cater to the specific needs of adoptees because they often forget to take the early adversity into account.
Adoption specific therapeutic services are called for worldwide, this needs not be very difficult. Affective neurobiology, trauma and attachment research next to adoption studies have given practitioners many tools to design a sustainable therapeutical practice for both adoption aware assessment as well as adoption aware treatment.
Objective: Advocating a neuro-informed approach to treatment when intercountry adoptees present developmental or other mental health problems. This approach is based on a combination of professional reflection as well as on theory and the idea is that it can be used broadly by clinicians, even when not specifically trained or focused on intercountry adoptions.
Participants and setting: Theoretical insights are combined with clinical experience in De Adoptiepraktijk, a private, specialized mental health practice, making the argument for embracing a neuro informed approach in working with intercountry adoptees in the Netherlands.
Methods: Theoretical evaluation, argumentation and personal reflection illustrated by a small case study.
Results Overview of problems, models and methods to be used in clinical work with intercountry adoptees.
Conclusions: Proposition to use theoretical and practical insights from the neurosequential network, dyadic developmental psychotherapy, sensorimotor psychotherapy[1] and the polyvagal theory to help clinicians assess the problems adopted clients encounter and plan interventions accordingly.

1. Introduction and objective

Over the past decades is has become clear that, in spite of massive developmental and relational catch up after adoption, intercountry adoptees world wide have a more frequent use of mental health services than their non adopted peers (Barroso et al., 2017;

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Askeland et al., 2017; Palacios & Brodzinsky, 2010; Van IJzendoorn & Juffer, 2006; Juffer et al., 2011; Rutter et al., 2009). For instance Tan and Marn (2013) state, based on US data, that one in every four to one in every two adopted children use mental health services. Behle & Pinquart (2016) found in a meta-analysis a twice as high risk for adoptees to experience psychiatric disorders, to come into contact with mental health services or to be treated in a psychiatric hospital. The adverse circumstances and experiences prior to the adoption leave their marks: many adoptees will be in need of mental health services at some point in their life (Juffer & Van IJzendoorn, 2005; Juffer & Van IJzendoorn, 2012b; Swinton, 2011). Although this is a general insight that is widely acknowledged in research and clinical literature, specialized intercountry adoption services are rare. One might argue that this is due to the small number of children involved most therapists or schoolteachers only once in a whilst come across intercountry adopted persons. Still, it strikes as odd that where so many studies on early adversity and insights on developmental pathways of adoptees are available, this has after decades not found its way to delivering standard services at least not in the Netherlands or other European Countries. In 2019 Euradopt, the organization of European Adoption Agencies, published minimum standards for Post Adoption Services (Euradopt, 2019) and although the emphasis on these services has been there since long (Forrest, 2003 e.g.), not many countries provide specialized services. Some countries are an exception to this rule, e.g. the United Kingdom (Northwest England Post-placement Adoption Service, 2015; Harlow, 2019) but still adoption competency in therapeutic services is not widely spread, nor in Europe nor in the USA (Riley & Singer, 2020; Burke, Schlueter, Bader, & Authier, 2018).

Taking into account the fact that in spite of all the efforts and literature, adoption specific services still are underdeveloped worldwide, the argument for a different approach to adoption specific needs is made. In this article a theory and practice based neuro-informed way of working in general psychological practice is proposed, that makes it easy to add an adoption sensitive focus to the day to day work. It is my opinion that in this way even therapists that only occasionally encounter adoptees, can provide adequate services to their adopted clients and families.

The start of the article is a short description of intercountry adoption in the Netherlands, providing some research and contextual background on service provisions and problems encountered. From there I describe my way of working, based on the theoretical lens of Developmental Trauma Disorder, the Neurosequential Model of Therapeutics® and Polyvagal theory. This lens enables tailor made planning of treatment interventions, both generic as well as adoption-specific, that will be discussed by referring to a short example from my practice (Perry et al., 2016; Van der Kolk et al., 2009; Waters, 2016; Porges, 2011; Dana, 2018a,b; Porges & Dana, 2018; Dana, 2020). The article is meant to be a professional, practical and theoretical, reflection on clinical adoption practice in the Netherlands.

2. Method: describing services, evaluating theory

2.1. Background: Dutch situation

In 1956 the first Dutch Adoption Law came into force. Aimed at legalizing the practice of giving Dutch foster children a permanent home, Dutch adoptions at that point consisted mainly of domestic adoptions. In the years to follow more and more children from abroad entered the Netherlands to be adopted, first from European countries like Greece and Austria, a decade later followed by other countries (e.g. Korea, Indonesia, Colombia). The majority of these children were very young on entrance (under the age of 1). Legislation lacked behind, so what already had become practice, finally became law in 1989, when the first Dutch international adoption law came into force. In 1998 this law was revised so the Netherlands could ratify the Hague Adoption Convention they signed some years prior to that date. The1998 law is still in force,[2] setting strict boundaries on intercountry adoptions and making it a highly regulated practice. Important points for clinicians are the facts that children cannot be older than 6 years on arrival and the age difference between child and oldest parent can be no more than 40 years, with the oldest parent not older than 42 years when placing the child in the family. Individual exceptions on the age of the child are occasionally granted (i.e. for children in sibling placements). As for numbers: an estimated total of nearly 60,000 children have been adopted of whom 40,000 were born abroad.[3] These children were born in over 100 different countries (statistics provided by CBS and Dutch Ministry of Justice and Safety, 1956 till 2019). Over the past decades domestic adoptions have become rare: about 20 children each year are relinquished at birth and placed in adoptive homes.[4] Hence when addressing adoption in the Netherlands, it nearly always concerns intercountry adoption. Currently numbers are dwindling: for instance in 2001 1122 children were adopted from abroad, whereas in 2020 73 children entered the Netherlands for adoption. Currently an estimated 9000–10,000 children are under the age of 18. This is important to realize because counseling no

[2] Ever since 2004 a number of attempts have been made to change the intercountry adoption law, however due to a number of political reasons, until now it failed: e.g. in 2020 a new law was ready to be presented to parliament, when the government fell. So now the wait is for a new government.

[3] Due to different systems of registration exact numbers are not available.

[4] The Netherlands hardly ever have the possibility for children to be adopted out of foster care or through the child protection system. Long term foster care is more common and guardianship in long term placements can be transferred to the foster parents or stay with the social worker at the child protection services. In case of domestic adoption, pregnant mothers-to -be that do not want to raise their child, are offered services to help them decide whether or not to keep the baby. In they decide on relinquishment, they are allowed to help choose the adoptive family. About one third of the prospected relinquishment comes through, the number fluctuates between 15 and 20 per year for the whole of the Netherlands. However, in the fifties, sixties and seventies, more children were domestically adopted, so there is a population of approximately 20.000 domestic adoptees (statistics provided by Dutch National Bureau of Statistics, CBS and Dutch Ministry of Justice and Safety, 1956 till 2019; LATAR registration on relinquishments and domestic adoptions by Fiom.nl)

longer needs to focus on the families with young children, but also on adoptees becoming parents, raising children and taking their place in society. This changing practice and decreasing numbers of intercountry adoptions, makes for a thorough reflection on both content as well as size of adoption specific services.

As for the drop in numbers: this can be seen worldwide and can be seen as a main effect of the Hague Convention, where countries are helped to build more robust child protection systems, enhance their family support and design alternative family care for children. As of 2020 due to the pandemic caused by COVID19 adoptions almost stopped worldwide, which too accounts for lower numbers. Next to all this, there is a raise in criticism on the system of intercountry adoption being open to abuse, which made some countries decide on (temporary) closing for adoption because of malpractices in the past (Selman, 2012; Joustra et al., 2020).[5]

2.2. The need for specialized services

From a clinical perspective, even if intercountry adoptions stops altogether, in the Netherlands we still have a population of nearly 40,000 intercountry adoptees that needs to be taken into account. Just for comparison, Sweden's population of intercountry adoptees is a bit larger than the Dutch one, 60,000, whereas in the US there is a population of over 280,000 intercountry adoptees.[6] Everywhere in the world adoptees are using, have used or may at some point be in need of (mental) health care (Barroso et al., 2017; Askeland et al., 2017; Palacios & Brodzinsky, 2010; Van IJzendoorn & Juffer, 2006; Rutter et al., 2009). The needs of the children and adults that already have been adopted, have changed massively during the past decades. Whilst in 2009 46% of all new adoptees were considered healthy upon arrival in the Netherlands, in 2020 only 5% of the children were classified as such, leaving 95% of the incoming children with an aforementioned special medical or psychological need. Next to this, the majority of children that entered in the recent years tends to be over the age of 2 years.[7] Based on these two facts we must insist on viewing intercountry adoptions in the Netherlands as almost solely 'special needs' adoptions. This shift in practice has massive effects on what adoptive parenting, adoptive family functioning as well as support services.[8] Although prospective parents follow a mandatory six session preparation program, are thoroughly screened by the Child Protection Boards, where special needs and parenting profiles are discussed and assessed, the reality of parenting a special needs child that very often also has underlying early adversity and adoption related issues, asks for therapeutic parenting skills and the creation of a sustainable therapeutic web around the family that may need to be extended into adulthood. Services do in general not cater to these needs and only rarely if at all provide such a comprehensive approach.

Second to that practice and views on adoption have shifted. The focus is now on malpractices: a substantial number of adult adoptees have found that the information on file is not correct, adjustments have been made and coming to terms with incomplete, lacking or falsified birth and identity related information is one of the biggest issues that a number of adoptees have to face. Coming to terms with this may ask for specific therapeutic support.

2.3. Mental health in intercountry adoptees

Whereas adoption provides children that cannot be raised by a birth family, with a family environment in which they - at least when studied as a group - recover physically, social-emotionally and cognitively from early adversity, the same research also shows that a great number of adoptees at any point in life, need mental health services (Askeland et al., 2017; Barroso et al., 2017; Juffer & Van IJzendoorn, 2012a; Gindis, 2019; Greene et al., 2007; Swinton, 2011; Van IJzendoorn & Juffer, 2006;; Mazza et al., 2016). Researchers explain this by the huge impact of early adverse experiences that shaped the lives, brains and nervous systems of the adoptees prior to adoption. Experiences like inconsistent care, maternal (prenatal) stress, malnutrition, violence, abuse, neglect and maltreatment activate and shape the neurobiology and the stress system, this inhibits regular development and therefore can be seen as responsible for the social, relational, cognitive and behavioral problems that often arise after the adoption and are addressed in therapy (Swinton, 2011; Juffer & Van IJzendoorn, 2012a; Perry et al., 2016; Gindis, 2019).

Gindis (2019) highlights the fact that intercountry adopted post institutionalized children[9] often encounter a combination of

[5] As of February 2021 there is a temporary ban on intercountry adoptions in place in the Netherlands. On that date an investigative report, meant to shed light on adoption malpractices between 1967 and 1998 in Brazil, Sri Lanka, Indonesia, Bangladesh and Colombia was presented. Based on that report and the opinion of the committee - although they did not research this nor had any valid data in the study - that malpractice still is common the Dutch government put a temporary moratorium in place. As of January 10th a new government is in place and the new Minister will need to decide on the future of intercountry adoption: continue and redesign the system or discontinue all together.

[6] https://www.hrw.org/news/2021/02/22/sweden-investigate-illegal-intercountry-adoptions; https://travel.state.gov/content/travel/en/Intercountry-Adoption/adopt_ref/adoption-statistics-esri.html?wcmmode=disabled.

[7] In 2002 nearly 70% of all children entering for adoption were under the age of 2 years, which now has changed to at least 70% being over the age of two on the moment of adoption. Official statistics Dept. of Justice and Security, Dutch Government 2002, 2019 https://adoptie.nl/adoptie/cijfers/.

[8] Due to the principle of subsidiarity as honored by all countries party to the Hague Adoption Convention (www.hcch.net convention 33) first kinship care is explored, then domestic adoption is considered and only when no family type care can be provided in the birth country, adoption can be an option. This process takes time. After that the paperwork needed for all court procedures takes time too. Most children therefore are over the age of 1 year when entering the Netherlands. Adoptions from the USA often are exempt from that. Adoptions from the USA often are infant adoptions.

[9] Gindis work focuses on post institutionalized adoptees, intercountry adopted post institutionalize children (IAPI). I choose not to use this term because sometimes children are not adopted from orphanages but directly from foster families hence IAPI is not applicable for the whole.

medical, social and educational issues in combination with mental health issues. In Dutch adoption clinical practice, where 95% of the children are considered 'special' needs, one would expect that after placement structural services would be available to support adoptees and their families throughout life. This is not the case.

Much attention in adoption clinical practice goes to medical issues. These are often first embarked upon. Medical problems are easiest recognized, diagnosed and treatment is often clear-cut. On arrival in the Netherlands a medical evaluation is conducted and when medical conditions are diagnosed, appropriate treatment is started (Hoogenboom et al., 2013; Wolfs & Pelleboer, 2017). There is a medical assessment protocol for adoptees but there is no standard psychological evaluation on entrance nor is there much anamnestic information (e.g. genetic or epi-genetic) to guide treatment. In the years after the adoption often educational, social-emotional, relational behavioral and parenting issues emerge. The majority of intercountry adoptees have - prior to the adoption - faced early childhood trauma. Trauma here being defined in a broad sense: all experiences that are so overwhelming for the individual that they trigger a survival response and therefore shape the child's neurobiology, impacting future behavior, emotions, beliefs and self-image. Early childhood trauma that occurs prior to being placed for adoption might consist of adverse childhood experiences (ACE's) such as lack of attachment relationships, disruptions of or toxic attachment relationships, large numbers of caregivers (e.g. in institutions), maltreatment, abuse, neglect, painful medical procedures etc. The exposure to early childhood traumatic events, sometimes paired with genetic vulnerabilities, presents after adoption as emotional disregulation, fear, anger, aggression, sleeping disorders, odd food preferences, lying, hoarding, attachment issues, problems at school and all sorts of other behavioral problems that make life very challenging for both child and family members (Gindis, 2019). When clinical help is sought for problems described above many DSM-5 classifications can be applied simultaneously: so where to start? What to treat in therapy?

Older studies, such as the English Romanian Adoption Study by Rutter et al. (2009)[10] identified four behavioral patterns that children develop as a reaction on institutional deprivation: attachment disorders, quasi autism, (acquired) ADHD and learning disabilities/problems in cognitive functioning. Recent studies corroborate these findings. Behle and Pinquart (2016) found elevated risks for the DSM classifications of ADHD, anxiety disorders, CD/ODD, depression, disorders of substance abuse, personality disorders, and psychoses. Attachment disorders and problems with relationships are commonly found both in institutionalized children as well as in adopted children (Van den Dries et al., 2009; Kerr, 2014; Van IJzendoorn et al., 2020). Gindis (2019) labels problems related to intercountry adoption as problems typical for post institutionalized children[11] and makes a distinction in medical issues, social and educational issues and mental health issues. In clinical presentations, these three are often intertwined, making it difficult to decide on where to start in support services or treatment. Which DSM-5 classification comes first?

2.4. Developmental trauma disorder

Early development and early relationships matter and when, like in intercountry adoption, the course of development is disrupted by trauma, sometimes life long consequences can be seen. When looking for a diagnostical classification, the problems and behaviors the children and families present are not covered fully by using classifications like PTSD, RAD and so on. In fact, no known DSM classification can fully grasp the full range and complex interplay of psychiatric problems, underlying conditions and behaviors that develop when early adversity, relational injuries and attachment disruptions intertwine with early childhood trauma.

Van der Kolk and colleagues propose to use the diagnosis Developmental Trauma Disorder.

DTD takes into account the pattern of repeated disregulation in response to attachment disruptions, emotional abuse and interpersonal trauma in children. This shows up in every day life in persistently altered attributions and expectancies, leading to functional impairment on educational, personal, familial, peer, legal and vocational levels (Van der Kolk, 2005; Van der Kolk, 2005; D'Andrea et al., 2012; Ford et al., 2018). The merit of this classification is both shown in a survey under 472 professionals (Ford et al., 2013) that warrants clinical dissemination and clinical field testing of the diagnosis in order to validate the actual clinical validity. This is then shown in a subsequent study by Spinazzola et al. (2021) where DTD shows its added value to the regular PTSD classification, because of the unique association of the symptomatology with underlying issues linked to caregiver separation and traumatic emotional abuse. Gindis (2019) underlines this by stating that DTD comes as 'the synergetic effect of weakened neurology, epigenetic, and transgenerational trauma, overwhelming preadoption stress, and the ordeal of culture and language adjustment after the adoption' (Gindis, 2019, p. 58). Based on the above and on my own clinical experience in over 200 cases, DTD deserves it to be embraced as a diagnosis that always needs to be considered in relation to intercountry adoption next to the more common DSM-5 classification. It may be the currently best fitting diagnostical paradigm, because it focuses on the relationships and takes into account eventual birth-related neurological weaknesses as well as the impact of trauma on neurobiology and development (Gindis, 2019).

[10] Rutteret al. (2009). Policy and practice implications from the English and Romanian Adoptees (ERA) Study: Forty Five Key Questions. London: BAAF.

[11] Gindis introduces the term intercountry adopted post institutionalize children (IAPI), since the main focus of his work is on post-institutionalized children. I choose not to use this term because not all children come from orphanages, some have had multiple foster placements and in my opinion the abbreviation IAPI does not 100% fit the population of intercountry adoptees.

2.5. Post adoption services

Attachment and trauma have been a primary focus in Dutch post adoption services. The formal organization delivering post adoption service is called FIOM/Adoption Services.[12] Next to the task of preparing prospective adopters before the adoption takes place, they provide video-interaction guidance after arrival, a body based program (Sherborne) and consultation for parents schools and other educators. A very big focus of this service is to enhance attachment. The adoption agencies, that mediated the adoption, provide low level peer support and psycho-education for the new adoptive families. Video Interaction Guidance (VIG), has proven to be an effective intervention, delivered on site, at the family home or at the school, it has helped adopters and teachers to attune and respond sensitively to their new child(ren), when problems are more trauma-related often EMDR is used to address trauma or the trauma story (Juffer & Bakermans-Kranenburg, 2018; Struik, 2014; Wesselmann et al., 2018; De Roos en Beer, 2017). Whilst many adoptees and adoptive families benefit from these two interventions, for some adoptees they are insufficient to help integrate the more difficult, trauma driven persistent behaviors. For many of their parents, the day to day parenting is too hard and there is a risk of 'blocked care' where parents no longer experience joy nor can they comfort or be sensitive to the child's needs (Baylin & Hughes, 2016; Hughes et al., 2019).

When regular services do not suffice, some of the adoptees come to my practice. In the period between 2006 and 2021 I have treated a total of 207 clients, in an age range of 3 to 65 years. Nearly all of them have seen other therapists prior to coming to my practice and often had VIG or CBT based interventions. In general a number of standardized and protocoled treatments have been applied, with limited success. So how to help these families when all has already been done? This needed a different approach.

2.6. Applying the neurosequential lens

When looking at the problems intercountry adoptees present from a DTD perspective, it still is not clear how to plan treatment: what to do when. This is where the Neurosequential Model of Therapeutics comes into play (Perry, 2006; Perry & Szalavitz, 2006). The NMT provides clinicians with a neuro-informed lens in order to identify developmental challenges and relationships that contribute to current risk or resiliency (Perry & Dobson, 2013; Perry & Hambrick, 2008). The NMT 'intertwines a neurodevelopmental and bio-ecological perspective' and by doing so, it provides a comprehensive perspective on both the impact of personal and relational experiences next to addressing developmental pathways (Jackson, Frederico, Cox & Black, 2019). Since the brain is a use-dependent organ, whose main purpose is to help the individual survive, all behavior in clients is interpreted through this lens. This proves extremely useful in both understanding the problems intercountry adoptees present as well as in treatment planning.

Experiences alter the brain either for good or bad (Perry & Szalavitz, 2006). This is backed up by a massive amount of neuro-scientific research (e.g. Baylin & Hughes, 2016; Porges, 2011; Schore, 2011) and sits well with Nelson (2011), who defines the process of brain development as a 'two-edged sword'. When experiences are good the brain benefits, however when experiences are bad, the brain suffers. Also, timing of experiences is important: in child development sensitive periods for development of specific functions occur and in combination with specific events, the effect on the brain may be even bigger when an adverse event happens just at that developmentally sensitive moment. This is exactly how Perry in the NMT proposes to look at child (adolescent and adult) functioning: 'simply stated, traumatic and neglectful experiences during childhood cause abnormal organization and function of important neural systems in the brain, compromising the functional capacities, mediated by these systems' (Perry, 2006, p.29)

In short, the NMT charts in a systematical way (epi) genetics, experiences, past and present relationships and relates that to present moment brain functioning. This results in a 'metric' that provides clinicians with an overview of early adverse experiences, relational health, current functioning and gives the clinician a brain map. The NMT chart, the metric, compares the client to a 'neurotypical' development, which means that the child or adolescent is compared to a peergroup of the same age that have been able to follow a 'regular' developmental pathway. The final part of the metric is a summary on how the person functions on four domains that normally develop in a neurosequential way, starting with sensory integration then self-regulation after that relation and finally cognition. Thus giving the clinician insight where to start with interventions. For instance, is there enough cognitive maturity to start CBT interventions or should therapy start off with a focus on sensory integration or self-regulation.

Bonebakker, Mulder, & Bloemendaal (2022) argue that specifically in difficult treatment processes this NMT lens provides a way to help difficult therapeutic processes move along better. Net to the benefits, they pinpoint the fact that although Perry's model has been subject to research, no meta-analysis or larger studies have been done yet. However, preliminary results and conclusions look promising: Caplis (2014) found in a small study of one centre that has been using the NMT for over five years that participating therapists were positive on the effects of NMT on clients: it lead to an increase in empathy and empowerment. Other studies, mainly conducted in close collaboration with Dr. Perry, the founder of NMT, show promising results too e.g. in a study of youth in residential treatment, significant reductions in restraints and critical incidents was found when using the NMT (Hambrick et al., 2018).

As of 2012 I tried to use a more neuro-informed way to plan interventions in therapies and finally got trained in using the NMT metrics in 2020, that I have been using with all my clients since then. Initially in therapies (before 2012) I worked through an attachment lens, combining trauma treatment and attachment interventions such as life story work and EMDR. For some of my clients

[12] Adoptionservices is the official organization to provide post adoption support: an adoption consultation help line is run for parents and professionals, they can help parents find a mental health professional experienced in adoption. The adoption agencies, there are four of them, provide peer support. Some adult adoptees provide adoption coaching. There is no formal structure for post adoption services and in regular mental health in general there is not much experience in treating adoption related issues.

however, especially the relational work proved too difficult. They taught me that to start with the relationship, when all came from a situation where the relationship in itself used to be damaging, was too hard. Co-regulation and contact in itself were the triggers for stress in these adoptees. If the stress system gets so activated by relational interventions, we need to calm the system first. This fits with looking at the problems presented through a neurosequential lens, providing the insight that before enhancing attachment, underlying problems related to the stress system, to sensory integration and self regulation need to be addressed.

If we as clinicians abide with the neurosequential order of development, we start, based on a NMT metric, with helping the child develop those areas of his brain that are the pre-cursors to attachment, whilst helping parents or partners of clients to adopt a therapeutic way of parenting/relating as described by Baylin and Hughes (2016) and Hughes et al. (2019). Current relations in day to day life are important to facilitate change. Very often we will need to start with developing sensory integration and self-regulation skills in the child or adult, whilst parallel to this parents or partners will need to develop therapeutic parenting or relational skills. They need to be regulated themselves in order to co-regulate their child, for specifically the latter role we need to dive into polyvagal theory.

2.7. Polyvagal theory

Porges (2011) polyvagal theory gives parents and children a clear framework for understanding their unconscious automatic adaptive reactions to situations, the survival responses guided by the stress system. Not all behavior is conscious, nor driven by choice. Often, especially for children and adults whom we could classify as displaying behavior fitting with DTD, the autonomic nervous system has a mind of its own and moves in patterns of protection (Dana, 2018a,b). Using insights from polyvagal theory in therapy is emerging especially in the trauma- field, helping clinicians to expand their work, which is the first step to more research and scientific evidence (Porges & Dana, 2018). Polyvagal theory can be summarized by its three core principles: hierarchy, neuroception and co-regulation. Hierarchy points at three pathways of response the autonomic nervous system can take and is depicted by Dana (2018a,b) as a ladder. The order is evolutionary, the oldest is the dorsal vagus (downside of the ladder) that is responsible for immobilization. The sympathetic nervous system (middle part of the ladder) comes next and is used to mobilize the person when threat is perceived (fight, flight, freeze). Finally the newest and upper part of the system (and ladder) is the ventral vagus, used for connection and social engagement (Dana, 2018a,b). Neuroception describes the way neural circuits distinguish how the individual perceives a situation or people: safe, dangerous, or life threatening, it is detection without awareness, in a split second the body reacts in order to survive (Baylin & Hughes, 2016; Dana, 2018a,b; Hughes et al., 2019; Porges, 2011). Finally there is the concept of co-regulation, which is also known and used in attachment theory but given a biological basis here in the polyvagal theory. Co-regulation creates a 'physiological platform of safety that supports a psychological story of security that then leads to social engagement' (Dana, 2018a). Through co-regulation humans form relationships and enter the world. A history of trauma and especially relational trauma, makes co-regulation difficult or even dangerous for the child, leaving the child mainly in a sympathetic, aroused state, ready to react but not able to connect. When applying this to intercountry adoptees in clinical settings like therapy, it is very important to realize that often the sympathetic nervous system (or when they really feel threatened, the dorsal vagus) will be in charge. When, like in many adoptions, the experiences of stress and trauma have been intense, the threat might be gone but the adaptive pattern stays. Repairs can be made later in life, due to neuroplasticity but this process is often lengthy and difficult. Interventions should be relevant, rhythmic, repetitive (patterned), relational (safe), rewarding (pleasurable) and respectful and appropriately dosed pacing and resilience should be taken into account (Perry, 2006; Perry & Dobson, 2013; Perry et al., 2016) (They should take both NMT and polyvagal theory in mind (Baylin & Hughes, 2016; Perry, 2006; Perry et al., 2016; Porges, 2011; Schore, 2011). In practice the advice is to be very aware of the polyvagal state the client presents itself in the present moment in order to be able to use body based (self) regulatory interventions so the client, either parent or child or adult adoptee, can slowly learn to self- and co-regulate.

3. Results: implications for practice

The theories laid out above have implications for therapeutic interventions with intercountry adoptees. In my solo private practice, the start of therapy is no longer just the attachment lens. With children, the first step is a NMT assessment of the child next to an assessment of the attachment history of the parents. These two elements are important. When taking the polyvagal theory and interpersonal neurobiology as a starting point, parents will need to be very aware of their own attachment driven reactions, background and triggers. Only when they are, they can act as co-regulators in various situations. Therapeutic interventions therefore ideally start with meetings with the parents consisting of psycho-education and exploration of attachment, trauma and personal regulatory strategies, as is common in dyadic developmental psychotherapy (DDP). Then a combination of DDP and Sensorimotor Psychotherapy is made. The latter is a body-based talking therapy, helping clients to feel more connected to their body, finding bodily resources to calm the nervous system and facilitating the body to process trauma and painful attachment experiences. For adults also an NMT based assessment is the start of treatment, mostly followed by individual Sensorimotor Psychotherapy sessions and sometimes supported by neurofeedback for regulatory purposes. Neurofeedback has been extensively searched in relation to cognitive and emotional functioning of children and adults, in relation to enhancing concentration and working memory (Steiner et al., 2014; Niv, 2013; Gruzelier, 2014,; Gruzelier et al., 2014,; Van der Kolk, 2014; Fisher, 2014). Fisher (2014) and Gapen et al. (2016) also report positive effects on trauma-related disregulation.

In practice I use DTD, the NMT and the polyvagal theory as foundations for the therapeutic interventions delivered. Often a lot of information is already present, so filling out an NMT metric or at least use the NMT lens to look at the four main domains of functioning: sensory integration, self regulation, relation and cognition is a good way to start. Where a couple of years back, I used to start with attachment interventions, I now typically start with interventions that aim at helping the child or adult integrate sensory input

and improve self regulation. Perry advocates the building of a therapeutic web around the client in order to facilitate rhythmic repetition of therapeutic interventions and positive interactions. This is done by cooperation with schools, social services and family members so therapeutic interventions become intertwined with daily life and the nervous system and brain can slowly repattern experience and reorganize.

Since co-regulation, relationship, attachment and trust, are paramount, this is an important starting point: a therapists needs to get the parents on board first. Dyadic developmental psychotherapy will do that (Baylin & Hughes, 2016; Hughes, 2007; Hughes, 2009; Hughes et al., 2019). I ideally start without the child with several sessions to help the parents make the transition to therapeutic parenting. They need to discover their own attachment and trauma triggers in order to be able to parent with PACE: Playfulness, Acceptance, Curiosity and Empathy. Psycho-education is one of the big themes in these parent sessions. DTD, the polyvagal theory, the NMT and neurobiological insights will be discussed. Also the personal attachment history of parents is the focus of the first contacts. Since many parents have had video interaction guidance before they come to the practice, a lot is already known and we can elaborate on that. Therapy can only make progress when both the child, parent and therapist are in a calm, regulated ventral vagal state. Parent sessions help parents to experience that so parents grow into their role as co-therapists and together we can help the child reorganize its experiences and change patterns that helped them survive but are no longer needed (Ogden, Minton, & Pain, 2006; Ogden & Fisher, 2015; Porges, 2011; Porges & Dana, 2018; Perry & Dobson, 2013;Perry, 2020). The number of parent sessions varies, in some cases a lot of work with the parents needs to be done before we can bring the child in for therapy but the other way round is possible too. For adults the same work is done but in individual therapy, psycho-education and working with dual awareness, the client is helped to explore the inner world, finding out how patterns have developed, finding meaning through the body and exploring new ways to integrate past experiences that obstruct daily functioning. If possible the partner can join in for support and understanding of the process.

When the parents are able to take their role as therapeutic parents, to be present with their child and not easily triggered by trauma-driven responses the child evokes, then we set out the next step and we can start therapy sessions with the child present. Then the first thing is to help the child tolerate therapy and relational intimacy. Often we encounter the intimacy barrier: children suffering from DTD have made an association between intimacy and threat. This makes connection difficult and potentially triggering for negative behaviors (avoidance, aggression, anger etc.). The sensitized stress system in combination with the intimacy barrier proves challenging and may be a hurdle in establishing a therapeutic relationship (Perry, 2017). Patience is needed to help the child desensitize the system and tolerate the relationship. The therapist needs to be present, predictable, attuned and nurturing for both parent and child. Close but not too close. That is the first step, mimicking co-regulatory processes that are foundational to self-regulatory capacities in later life and transferring them to the parent child dyad (Baylin & Hughes, 2016; Beeghly et al., 2016; Dana, 2018a,b). However, co-regulation in itself can be too triggering and often other work such as sensory-integration exercises aimed at helping the child tolerate the therapeutic relationship needs to come first. It always is a gentle attuned, tailor made process where the principle of follow - lead - follow is important.

Case example

Benji was born in Brazil, adopted at age 1. Prior to his adoption, he suffered a severe burn injury which scarred his face and left him with some sight issues, that were corrected with glasses. It is a single parent adoption, he lives with his mother and 2 year younger, not biological related, adopted brother. He is 8 years old when he comes to practice. School has done some testing and he has been diagnosed with ADHD, learning disabilities and ODD. He is then referred to special education. There were issues in anger regulation. We start off with parent sessions where we discuss regulation, exercises (like swinging, yoga poses, breathing, drumming) and after a whilst Benji joins his mum in therapy. Then we work on his life- story, using play, the exercises we already introduced thus facilitating body awareness and playful regulation using Sensorimotor Psychotherapy based interventions in combination with dyadic developmental psychotherapy. Sensorimotor work for instance focused on breathing and finding physical resources for Benji such as his hand rubbing his neck as a way to calm himself whilst regulating the breath. We came to the resource because during play he was rubbing his neck so bringing attention to that and then capitalizing on it, finding meaning and making it a conscious resource worked for him. In the DDP work we used a parallel story then mother and I linked this to his life-story, talking for him when he did not have the words and finding new meaning for his being left behind and for being injured so severely. The anger could be addressed that way and underneath the grief and sadness came when realizing that there had been no one there to protect him from being burned. Mum was there to comfort him and he could yield to her in this comfort, thus something transformed and he could both embrace the thought of being here and belonging here as well as embody it. So we had him sit, walk, run with that new feeling (sensorimotor) so he could integrate it and really anchor this. Parallel to sessions in my practice, Benji received neurofeedback in a specialized practice that I collaborate with, which helped his brain to calm down a bit and enhances his concentration. There were regular contacts with school and with his mentor at scouting so everybody stayed at the same page when reacting to Benji, using the same language and regulatory tools in different situations helping Benji to really build new neural pathways and making the survival driven anger response obsolete. The treatment took nearly three years, afterwards he got accepted into a regular secondary school, practice based. After reconstructing his story, taking time to process the grief of the burns, the scars, Brazil, feeling abandoned, new meaning could be found in the connection with his adoptive mother and we were able to close therapy.

4. Discussion and conclusions

Adoption is not a very common phenomenon and when in need for therapeutic help, as research shows a situation that often occurs, adoptees often are referred to regular services. In general, regular therapeutic services do not cater to the specific needs of adoptees because they often forget to take the early adversity and the impact of trauma on neurobiology and development into account.

Adoption specific therapeutic services are called for worldwide, this needs not be very difficult. Affective neurobiology, trauma and attachment research next to adoption studies have given practitioners many tools to design a sustainable therapeutical practice for both adoption aware assessment as well as adoption aware treatment.

For the Dutch situation we have a small adoption population consisting of (young) adults on one hand and mainly special needs children on the other hand. We need to take into account that the population might be even become smaller in the years to come. Thus I propose - based on theory and adoption clinical experience as a psychologist - to work from a neurosequential, neuro-informed lens, starting off with a NMT assessment and planning interventions accordingly. The NMT takes brain, body, trauma and relationships into account. After having filled out the NMT therapies can be planned accordingly to the metric. Trained as a practitioner in Sensorimotor Psychotherapy, my preference is to start in therapy with what the body presents. By bringing in the body rather than focusing primarily on the story, a powerful tool comes available to help build new response patterns, integrate trauma and overcome attachment issues. Since many adverse experiences originate from the pre-verbal period, and the 'body holds the score' (Van der Kolk, 2014) we can no longer overlook the body as starting point in therapeutic processes. Looking at the activation of the stress system, posture, gaze, gestures, muscle tone, gives invaluable information for therapists (Ogden & Fisher, 2015; Ogden, et al. 2006). In this respect short playful interventions from Sensorimotor Psychotherapy are called for and can be used to help the child or adolescent explore the body, become more familiar with 'body language' and get more mindful to their own body. Helping them to gain more control over their own regulatory patterns and stress responses. This works very well, even for young children (Booth & Jernberg, 2010; Ogden & Fisher, 2015; Mark-Goldstein & Ogden, 2013). However, when sensory integration issues, emotion-regulation problems and/or mood swings prevent the child to function at school or in the family more basic regulatory work may be needed. I then refer to neurofeedback, a computer assisted brain-based training, as a supportive therapeutic modality to help regulate and be more receptive for the other therapeutic interventions (Fisher, 2014).

When regulatory capacity grows, the attachment work can start and we can find new meaning to the life story of the adopted person. Then DDP comes into play, a therapeutic intervention I trained in too. For therapists that are not too familiar with adoption, they can have the parents in the lead for the factual story and step in when voicing, speaking for the child, exploring old and new meaning in the story, thus helping the child integrate disruptions, trauma and life -events in a way he or she can embody, feel and understand.

Still, whatever lens we choose, whatever interventions we plan for adoptees, the road is never easy nor short. Patience is needed and in time, in repetition, new patterns can be built, early adversity can be overcome. Recent theoretical and practical insights from the neurosequential network, dyadic developmental psychotherapy, sensorimotor psychotherapy and the polyvagal theory can help clinicians assess the problems clients encounter and plan tailor made interventions.

When looking at designing services to help adoptees overcome early adversity, I am convinced that using the here described theoretical and practical tools, thus designing personalized treatment, is a good way to help clients grow, connect with self and others, in order to find their own safe place in the world. Awareness of adoption is important but even more thorough knowledge of affective neurobiology, trauma, polyvagal theory and attachment, is what can make for adoption competent therapy. May be this approach can be used for more client groups, such as children in foster or residential care for whom a DTD diagnosis is considered.

References

Askeland, K. G., Hysing, M., La Greca, A. M., Aarø, L. E., Tell, G. S., & Sivertsen, B. (2017). Mental health in internationally adopted adolescents: A meta-analysis. *Journal of the American Academy of Child & Adolescent Psychiatry, 56*, 203–213.e1. https://doi.org/10.1016/j.jaac

Mazza, J. R., Kitchen, H., Harrington, E., White, E., & Baden, A. L. (2016). Mental health issues. In R. Fong, & R. McRoy (Eds.), *2016. Transracial and intercountry adoptions: Cultural guidance for professionals. Chapter &* (pp. 193–236). New York: Columbia University Press.

Barroso, R., Barbosa-Ducharne, M., Coelho, V., Costa, I.-S., & Silva, A. (2017). Psychological adjustment in intercountry and domestic adopted adolescents: A systematic review. *Child & Adolescent Social Work Journal, 34*(5), 399–418.

Baylin, J., & Hughes, D. A. (2016). The neurobiology of attachment focused therapy. In *Enhancing connection and trust in the treatment of children and adolescents*. New York: Norton.

Behle, A. E., & Pinquart, M. (2016). Psychiatric disorders and treatment in adoptees: A meta-analytic comparison with non-adoptees. *Adoption Quarterly, 19*(4), 284–306.

Beeghly, M., Perry, B. D., & Tronick, E. (2016). Self-regulatory processes in early development. In , *2016-02-11*. *Oxford Handbooks Online*. Oxford University Press.

Bonebakker, A., Mulder, N., & Bloemendaal, T. (2022). Het neurosequentiële model van therapie als handvat voor uitblijvende behandelrespons. *Essay. De Psycholoog, 57*(2), 44–48.

Booth, P., & Jernberg, A. (2010). *Theraplay helping parents and children build better relationships through attachment-based play*. New York: Wiley.

Burke, R. V., Schlueter, C., Bader, E., & Authier, K. J. (2018). Post-adoption services for high-risk families and their children: Preliminary results of a state wide intervention. *American Journal of Family therapy, 46*(2), 122–138.

Caplis, C. F. (2014). *Feasibility and perceived efficacy of the neurosequential model of therapeutics*. ProQuest Dissertations Publishing.

D'Andrea, W., Ford, J., Stolbach, B., Spinazzola, J., & van der Kolk, B. (2012). Understanding interpersonal trauma in children: Why we need a developmentally appropriate trauma diagnosis. *American Journal of Orthopsychiatry, 82*(2), 187–200. De Bellis, M.

Dana, D. (2020). *Polyvagal exercises for safety and connection 50 client-centered practices*. New York: Norton.

Dana, D. (2018a). *Clinical applications of the polyvagal theory*. New York: Norton.

Dana, D. (2018b). *The polyvagal theory in therapy*. New York: Norton.

De Roos en Beer. (2017). EMDR-verhalenmethode: traumaverwerking bij pre- verbaal trauma. In *Handboek EMDR bij kinderen en jongeren, blz 125-140 (EMDR -story telling method: treatment of preverbal trauma)*. Amsterdam: Lannoo Campus.

Euradopt. (2019). *Minimum Standards for Post Adoption Services*. Hague: Euradopt: The. http://portal.euradopt.org/images/EurAdoptsDemandforMinimumStandardsforPost-AdoptionServices.pdf.

Fisher, S. F. (2014). Calming the fear driven brain. In *Neurofeedback in the treatment of developmental trauma*. New York: W.W. Norton & Company.

Ford, J. D., Spinazzola, J., Van der Kolk, B., & Grasso, D. J. (2018). Toward an empirically based developmental trauma disorder diagnosis for children: Factor structure, item characteristics, reliability, and validity of the developmental trauma disorder semi-structured interview. *The Journal of Clinical Psychiatry, 79*(5), Article 17m11675.

Fisher, S. F. (2014). Calming the fear driven brain. In *Neurofeedback in the treatment of developmental trauma*. New York: W.W. Norton & Company.

Ford, J. D., Grasso, D., Greene, C., Levine, J., Spinazzola, J., & van der Kolk, B. (2013). Clinical significance of a proposed developmental trauma disorder diagnosis: results of an international survey of clinicians. *J. Clin. Psychiatry, 74*(8), 841–849, 2013 Aug.

Forrest, V. (2003). How post-adoption support can make adoption a success. In A. Douglas, & T. Philpot (Eds.), *Adoption : Changing families, changing times* (pp. 132–139). London: Routledge.

Gapen, M., Kolk, B., Hamlin, A., Hirshberg, E., Suvak, L., & Spinazzola, M. (2016). A pilot study of neurofeedback for chronic PTSD. *Applied psychophysiology and biofeedback, 41*(3), 251–261.

Gindis, B. (2019). *Child development mediated by trauma*. London: Taylor and Francis.

Greene, S., Kelly, R., Nixon, E., Kelly, G., Borska, Z., Murphy, S., … Murphy, C. (2007). A Study of Intercountry Adoption Outcomes in Ireland. *Unknown Publisher*.

Gruzelier, J. H. (2014). EEG-neurofeedback for optimising performance. A review of cognitive and affective outcome in healthy participants. *Neuroscience & Biobehavioral Reviews, 44*, 124–141.

Gruzelier, J. H., Foks, M., Steffert, T., Chen, M. J., & Ros, T. (2014). Beneficial outcome from EEG-neurofeedback on creative music performance, attention and well-being in school children. *Biological Psychology*, 9586–9595.

Hambrick, E. P., Brawner, T. W., Perry, B. D., Wang, E. Y., Griffin, G., DeMarco, T., Caparelli, C., Grove, T., Maikoetter, M., O'Malley, D., Paxton, D., Freedle, L., Friedman, J., Mackenzie, J., Perry, K. M., Cudney, P., Hartman, J., Kuh, E., Morris, J., … Strother, M. (2018). Restraint and critical incident reduction following introduction of the neurosequential model of therapeutics (NMT). *Residential Treatment for Children & Youth, 35*(1), 2–23.

Harlow, E. (2019). Defining the problem and sourcing the solution: A reflection on some of the organisational, professional and emotional complexities of accessing post-adoption support. *Journal of Social Work Practice, 33*(3), 269–280.

Hughes, D. (2007). *Attachment focused family therapy*. New York: Norton.

Hughes, D. (2009). *Attachment focused parenting*. New York: Norton.

Hughes, D., Golding, K. S., & Hudson, J. (2019). *Healing reational trauma with attachment focused interventions*. New York: WW Norton.

Hoogenboom, L. A., de Weerd, C. F. M. M., Ten W.E., T. A., Mulder, J. C., & Pelleboer, R. A. A. (2013). Trends bij oriënterend medisch onderzoek van buitenlandse adoptiekinderen [Trends in the exploratory medical examination of intercountry adoptees]. In *Tijdschrift Voor Kindergeneeskunde*, 2013 - 81 - nr 2 31-37.

Jackson, A., Frederico, M., Cox, A. & Black, C. (2019). The Treatment of Trauma. The Neurosequential Model and "Take Two". In: B. Huppertz (Ed.) (2019). Approaches to psychic trauma: theory and practice. pp 423-456 Lanham: Rowman & Littlefield Publishing Group Inc.

Joustra, T., Houtzagers, B., & De Graaff, B. (2020). *Commissie Onderzoek Interlandelijke Adoptie: Rapport*. Den Haag i.o.v. Ministerie van Justitie en Veiligheid. https://www.rijksoverheid.nl/documenten/rapporten/2021/02/08/tk-bijlage-coia-rapport.

Juffer, F., & Van IJzendoorn, M. H. (2005). Behavior problems and mental health referrals of international adoptees: A meta-analysis. *JAMA-Journal of the American Medical Association, 293*(20), 2501–2515.

Juffer, F., Palacios, J., Lemare, L., van IJzendoorn, M., & Verhulst, F. (2011). II: Development of adopted children with histories of early adversity. In *, 76. Monographs of the Society for Research in Child Development* (pp. 31–61).

Juffer, F., & Bakermans-Kranenburg, M. J. (2018). Working with Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD): A case study. *Journal of Clinical Psychology, 74*(8), 1346–1357.

Juffer, F., & Van IJzendoorn, M. H. (2012a). Review of meta-analytical studies on the physical, emotional, and cognitive outcomes of intercountry adoptees. In J. L. Gibbons, & K. Smith Rotabi (Eds.), *Intercountry adoption: Policies, practices, and outcomes* (pp. 175–186). Southampton, UK: Ashgate.

Juffer, F., & Van Ijzendoorn, M. H. (2012b).), Review of Meta-Analytical Studies on the Physical, Emotional, and Cognitive Outcomes of Intercountry Adoptees. In J. L. Gibbons, & K. Smith Rotabi (Eds.), *Intercountry adoption: Policies, practices, and outcomes* (pp. 175–186). Southampton, UK: Ashgate.

Kerr, L. (2014). Attachment interventions with foster and adoptive parents: A systematic review. *Child Abuse Review, 23*(6), 426–439.

Mark-Goldstein, B., & Ogden, P. (2013). Sensorimotor psychotherapy as a foundation of group therapy with younger clients. In S. P. Gantt, B. Badenoch, S. P. Gantt, & B. Badenoch (Eds.), *The interpersonal neurobiology of group psychotherapy and group process* (pp. 123–145). London, England: Karnac Books.

Nelson, C. S. (2011). *V. The Neurobiological Toll of Early Human Deprivation, 76* pp. 127–146). Monographs Of The Society For Research In Child Development.

Niv, S. (2013). Clinical efficacy and potential mechanisms of neurofeedback. *Personality and Individual Differences, 54*(6), 676–686.

Northwest England Post-placement Adoption Support Service: a new service to meet the adoption support needs of families in the NW region, 2013–2015, 2015Northwest England Post-placement Adoption Support Service: A new service to meet the adoption support needs of families in the NW region, 2013–2015. (2015). Adoption & Fostering, 39(2), 179–183.

Ogden, P., & Fisher, J. (2015). *Sensorimotor psychotherapy: Interventions for trauma and attachment*. New York, NY, US: W W Norton & Co.

Ogden, P., Minton, K., & Pain, C. (2006). *Trauma and the body: A sensorimotor approach to psychotherapy*. New York, NY, US: W W Norton & Co.

Palacios, J., & Brodzinsky, D. (2010). Review: Adoption research: Trends, topics, outcomes. *International Journal of Behavioral Development, 34*(3), 270–284.

Perry, B. D., & Hambrick, E. P. (2008). The neurosequential model of therapeutics. *Reclaiming Children and Youth, 17*(3), 38–43.

Perry, B. D., & Szalavitz, M. (2006). *The boy who was raised as a dog and other stories from a child psychiatrist's notebook: What traumatized children can teach us about loss, love, and healing*. New York: Basic Books.

Perry, B. D., Hambrick, E., & Perry, R. D. (2016). A neurodevelopmental perspective and clinical challenges. In Fong, & McRoy (Eds.), *Transracial and intercountry adoptions : Cultural guidance for professionals* (pp. 126–154). New York: Columbia University Press.

Perry, B. D. (2006). Applying Principles of Neurodevelopment to Clinical Work with Maltreated and Traumatized Children: The Neurosequential Model of Therapeutics. In N. B. Webb (Ed.), *Working with traumatized youth in child welfare* (pp. 27–52). The Guilford Press.

Perry, B. D. (2017). The intimacy barrier. In *The NMC Ten Tip Series*. Houston TX: CTA Press. all rights reserved © Bruce D. Perry.

Perry, B.D. (2020). The Neurosequential Model. A developmentally sensitive neuroscience informed approach to clinical problem solving. In : Mitchell, J. Tucci, J. & Tronick, E. (2020). The handbook of therapeutic care for children pp 137-155. London: Jessica Kingsley Publishers.

Perry, B. D., & Dobson, C. L. (2013). Treating complex traumatic stress disorders in children and adolescents: Scientific foundations and therapeutic models. In J. D. Ford, & C. A. Courtois (Eds.), *2013. Treating Complex Traumatic Stress Disorders in Children and Adolescents* (pp. 249–260). New York: Guildford Press.

Porges, S. W. (2011). *The polyvagal theory: Neurophysiological foundations of emotions, attachment, communication, and self-regulation*. New York: Norton.

Clinical applications to polyvagal theory. In Porges, S. W., & Dana, D. (Eds.), *The emergence of polyvagal informed therapies*, (2018). New york: Norton.

Porges, S. W., & Dana. (2018). D. In *Clinical Applications of the Polyvagal Theory. The Emergence of Polyvagal-Informed Therapies*. New York: Norton.

Riley, D., & Singer, E. (2020). Training for adoption competency curriculum. In G. Miller Wrobel, E. Helder, & E. Marr (Eds.) (1st ed.,, *2020. The Routledge handbook of adoption* (pp. 449–463). London and New York: Routledge.

Rutter, M., Beckett, C., Castle, J. K., Stevens, J., & Sonuga-Barke, E. (2009). *Policy and practice implications from the English and Romanian Adoptees (ERA) study: Forty five key questions*. London: BAAF.

Schore, A. (2011). *The science of the art of psychotherapy*. New York: W.W. Norton.

Selman, P. (2012). The global decline of intercountry adoption: What lies ahead? *Social Policy and Society : A Journal of the Social Policy Association, 11*(3), 381-397.1.

Spinazzola, J., Kolk, B., & Ford, J. D. (2021). Developmental trauma disorder: A legacy of attachment trauma in victimized children. *Journal of Traumatic Stress, 34*(4), 711–720.

Steiner, N. J., Frenette, E. C., Rene, K. M., Brennan, R. T., & Perrin, E. C. (2014). Neurofeedback and cognitive attention training for children with attention-deficit hyperactivity disorder in schools. *Journal of Developmental and Behavioral Pediatrics, 35*(1), 18–27.4.

Struik, A. (2014). *Treating chronically traumatized children: Don't let sleeping dogs lie!* New York: Routledge.

Swinton. (2011). *Adoptees and behavior problems: A meta-analysis*. ProQuest Dissertations and Theses University Press.

Tan, T. X., & Marn, T. (2013). Mental health service utilization in children adopted from US foster care, US private agencies and foreign countries: Data from the 2007 National Survey of adoption parents (NSAP). *Children and Youth Services Review, 35*(7), 1050–1054.

Van der Kolk, B. (2005). Developmental trauma disorder: Towards a rational diagnosis for children with complex trauma history. *Psychiatric Annals, 35*(5), 401–408.

Van der Kolk, B. (2014). *The body keeps the score: Brain, mind, and body in the healing of trauma*. New York: Viking.

Van der Kolk, B., Pynoos, R. S., Cicchetti, D., Cloitre, M., Ford, J. D., Lieberman, A. F., & Teicher, M. H. (2009). *Proposal to Include a Developmental Trauma Disorder Diagnosis for Children and Adolescents in DSM-V*.

Van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., Duschinsky, R., Fox, N. A., Goldman, P. S., Gunnar, M. R., … Sonuga-Barke, E. J. S. (2020). Institutionalisation and deinstitutionalisation of children 1: A systematic and integrative review of evidence regarding effects on development. *The Lancet. Psychiatry, 7*(8), 703–720.

Van IJzendoorn, M. H., & Juffer, F. (2006). The Emanuel Miller Memorial Lecture 2006: Adoption as intervention. Meta-analytic evidence for massive catch up and plasticity in physical, socio-emotional and cognitive development. *Journal of Child Psychology and Psychiatry, 47*, 1228–1245.

Waters, F. S. (2016). *Healing the fractured child: Diagnosis and treatment of youth with dissociation*. Springer Publishing Company.

Wesselmann, D., Armstrong, S., Schweitzer, C., Davidson, M., & Potter, A. (2018). An integrative EMDR and family therapy model for treating attachment trauma in children: A case series. *Journal of EMDR Practice and Research, 12*(4), 196–207. https://doi-org.ezproxy.leidenuniv.nl/10.

Wolfs, T., & Pelleboer, R. (2017). Ontwikkelingen op adoptiegebied in Nederland. In *, 1. Praktische Pediatrie* (pp. 29–33) (2017). (Developments in intercountry adoption in the Netherlands).

Van den Dries L., Juffer F., van IJzendoorn M.H. & Bakermans-Kranenburg M.J. (2009). Fostering security? A meta-analysis of attachment in adopted children. Children and Youth Services Review31:3, pp. 410-421.