

Sensory-Affective Association Model: Bridging the Connection Between Parental Emotional Neglect and Tactile Perception Development

Sanjana Shankar¹; Aastha Govind Shirodker²; Bharti Pathania³

^{1,2}Department of Psychology
MIE-SPPU Institute of Higher Education
Doha, Qatar

³Department of Lifelong Learning
University of Jammu
Jammu and Kashmir, India

Publication Date: 2026/07/18

Abstract: Aim- This study aims to examine the relationship between childhood emotional neglect and tactile perception development, and its impact on the psychosocial development of children. Background- Touch is the first sense to develop in a fetus, due to which tactile perception holds primary importance in development. Tactile receptors are fired upon experiencing different kinds of touch, such as affective (affectionate) touch, functional touch, firm touch, rough handling, etc., which facilitates tactile perception development. Lack of exposure to affective touch has adverse effects on holistic development, resulting in potential impairments in sensory perception. Methodology- This paper follows a conceptual review methodology. Studies were scouted from different research databases such as Google Scholar, ResearchGate, PubMed, etc., using keywords such as ‘parent-child relationship’, ‘sensory modulation’, ‘emotional availability’, ‘affective touch’, etc. The findings were synthesized to develop a conceptual framework, representing the relationship between childhood emotional neglect and altered sensory processing. Results and Discussion- Touch deprivation was identified to be the leading cause of mental health issues such as depression and anxiety in adolescents, as well as problems associated with sensory processing, perception of affective touch, and attachment. Conclusion- Despite the presence of methodological constraints, the implications of the proposed framework may be profound in terms of designing interventions, in the context of tactile sensory perception and impairment.

Keywords: Childhood Experiences, Emotional Unavailability, Tactile Perception.

How to Cite: Sanjana Shankar; Aastha Govind Shirodker; Bharti Pathania (2026) Sensory-Affective Association Model: Bridging the Connection Between Parental Emotional Neglect and Tactile Perception Development.

International Journal of Innovative Science and Research Technology, 11(7), 305-310. <https://doi.org/10.38124/ijisrt/26jul302>

I. INTRODUCTION

Due to the skin being the largest organ in the human body, the sense of touch occupies a greater extent, compared to the other senses such as sight, sound, smell, and taste [1]. Primary, secondary, and tertiary neurons transfer information from these senses to the somatosensory system [2]. This information can be referred to as sensations, while the processing of these sensations can be termed as perception [3]. Mechanoreceptors (the skin cells) detect sensations and get activated, as an individual actively touches an object. This information is sent to the spinal cord and the brain stem through afferents (nerves and neural pathways), after which it

is transferred to the parietal cortex (records sensory and motor information) with the help of the thalamus [4, 5].

With touch being the first sense to develop in a fetus, it can be said that it is the most fundamental source of holistic development [6]. Its surroundings in the womb, with the placenta, umbilical cord, amniotic fluid, and uterine surface, as well as the mother’s touch on the abdomen [7], facilitate somatosensory stimulation [8]. During birth, the fetus experiences cutaneous touch by constantly being hugged by the contractions of the uterus. This helps stimulate the sensory system, which stimulates the organs of the fetus, helping in survival after birth [9]. After birth, the infant naturally expects

to experience what it experienced in the womb. Hence, the caressing nature of the uterus is imitated as the baby is cuddled and held by their parents [10], helping in reducing feelings of pain and discomfort [11, 12].

Harlow [13] experimented on infant monkeys segregated into two groups based on their feeding habits, namely, bottle feeding and maternal nursing. He determined that the mortality rates of the latter group were lower compared to the former group. He had also observed odd social behaviors in the monkeys belonging to the former group [14]. Before Harlow, Spitz [15] had compared children of two groups, one whose mothers were in prison but who still had access to their children, and the other belonging to orphanages after being abandoned by their families. The children belonging to both groups received adequate medical care and nutrition, but he observed adverse behaviors and delayed developmental milestones in the latter group. Hence, it can be assumed that parental distance, physical and emotional, leads to adverse effects on the holistic development of individuals.

II. REVIEW OF LITERATURE

One of the most vital aspects of a child's optimal development is the bond they possess with their parents. The intimacy one has with their family, and the intimacy present within one's family, can impact the emotional connection developed with other family members or peers, as children grow up [16, 17]. The child remains dependent on their parent for survival, and the parent is responsible for nurturing and fostering the child's growth, through consistent positive interactions between the parent and the child. This lays the foundation for future interactions and other behaviors, as the child grows [18, 19], as well as in cognitive and emotional development [20].

With the presence of parenting styles, each parent has the freedom and choice to raise their children in their own way, influencing their behavior and morals [21]. The use of touch, while parenting, also bears weight in children's perception of trust, compassion, and discipline, as they grow older [22]. Children learn to develop mental representations of their body, through mechanoreceptors, creating a sense of self-ownership through personal space, or the space that surrounds their body [23]. Upon observing and understanding how people express emotions and feelings, children gain emotional awareness, which is developmentally fundamental as they grow into adolescence and adulthood [24]. With touch being a primary medium of communication between a parent and a child [25], consistent tactile stimulation helps in the maturation of the sense of touch, as well as perception of trust, compassion and discipline, as children grow older [22]. Early interpersonal touch, a form of love and affection in the familial context, provides psychological and physical intimacy between parents and their children [26]. When the parent is physically or emotionally unavailable, it leads to emotional dysregulation within the child [27]. In this case, the child receives a lack of sensory stimulation, since they do not receive much attention from either parent.

III. METHODOLOGY

This study adopts a conceptual review methodology, building a theoretical model to understand the link between emotional unavailability, sensory processing, and attachment. Relevant papers were scouted through online databases such as ResearchGate, Google Scholar, Frontiers, PubMed, and American Psychological Association, using keywords like '*childhood experiences*', '*tactile perception*', '*emotional neglect*', '*parent-child relationship*', '*parenting styles*', and '*attachment*'. English language articles published in peer-reviewed or open-access journals, that specifically elucidate on the relationship between parental emotional distance and tactile perception development have been considered, while content from blogs and irrelevant papers have not been selected.

IV. RESULTS AND DISCUSSION

Infants' exposure to touch after birth renders them sensitive towards affective touch, giving them the ability to discriminate between the neural and physiological aspects of affective touch [28]. Parents develop emotional closeness with their children, when they experience positive feelings and a sense of responsibility towards their children, while emotional distance exists on the other spectrum, where parents experience disconnection and alienation from their children, even if they are physically close [29]. The environment, physical and emotional, surrounding children influences the processes of neurodevelopment [30]. Children undergo biological changes in their brains as they grow, shaping their cognition, behavior and emotions as they interact with the economic, cultural, and psychosocial forces present in society [31].

As infants are born, the brain undergoes the most important stage of development, until the child is three years old [32]. It is crucial for children, during this phase, to receive nurturance and experience positive relationships, since experiences help the brain adapt to changes throughout the lifespan [33]. When caregivers respond promptly to their children's needs, children understand their emotional states and learn to regulate themselves, in case of adverse life circumstances. The concept of *parental emotional availability* is central to the emotional development of children, as well as, self-regulation, which allows them to appropriately modulate emotional responses [34]. Since touch is a means of communication, the C-Tactile nerves act as channels through which messages are passed, like most communication models [35]. They are also responsible for recognizing affective touch, making the skin 'a social organ' [36].

Factors such as the age of the mother, the ability to understand the cues of the child, interparental conflicts, etc. affect the prevalence of emotional availability in the parent-child relationship. Easterbrooks, Chaudhuri, & Gestsdottir [37] found an increased occurrence of depression in adolescent mothers, who experience severe stress and other risk factors, affecting their sensitivity towards their child. This is also linked to problems in child development, due to suboptimal conditions at home, lack of social support, etc. Adolescent mothers also engage in less maternal behaviors, due to clashes

with typical adolescent behaviors such as freedom, spontaneity, etc. There is a difference in the strength and quality of the relationship, when the mother perceives subtle cues of distress, compared to perceiving obvious cues. Interparental conflicts lead to an increase in feelings of frustration and distress, which interrupts their tendency and ability to be emotionally available and supportive, which affects the child's mental health, impacting attachment and adjustment to life's circumstances [38].

As individuals interact with elements present in the environment, sensory organs such as eyes, skin, nose, etc. respond to these through changes in their energy [39]. The relationships children have with their family members and friends influence their reaction towards novel situations and

experiences, either showing their responses through caution or fear. Children born into stable and loving environments approach situations calmly, while children born into chaotic and unstable environments withdraw from that space and show poor holistic development [40]. The intensity, timing, and types of behaviors displayed by the parent during this phase leads to the learning of *affect attunement*, where the child learns to reciprocate affective behaviors such as smiles, hugs, etc. [41]. When they develop further, they learn to understand the link between the context of social situations to facial expressions, a concept known as *intersubjectivity*. Intersubjective experiences consider the infants' competencies in the psychosocial and cognitive domains, as well as the responsiveness of the caregiver to their needs [42].

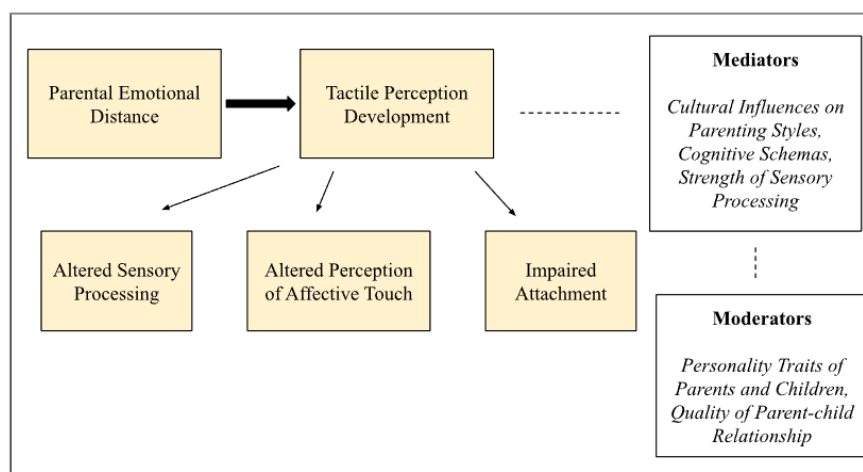


Fig 1 Sensory-Affective Association Model
(Own work)

The way people process sensory information denotes the psychological aspect of how people process environmental stimuli. There is a connection between individuals and the environment through sensation, through which individual differences and sensitivity towards the processing of sensory information can be understood [43]. Upon experiencing affective touch such as caresses, cuddles, etc., children experience pleasure, strengthening the symbolic value of the sensory experience [44]. Children experience altered sensory processing in domains such as tactile defensiveness, difficulties in sensory modulation, and display abnormal reactions to stimuli, upon exposure to child abuse. Negative reactions to environmental stimuli facilitate the occurrence of nonrecognition of social cues, attachment issues, etc., due to difficulties in processing emotions. Children whose parents invalidate their experiences develop habits related to emotional inhibition, such as suppression of, and expression of emotions, which prompts them to avoid emotions in general. This facilitates the development of mental health issues and disorders such as negative affect, anxiety, obsessive-compulsive tendencies, etc., coping styles such as avoidant coping, dissociation [45], and attachment styles such as insecure-avoidant attachment [46]. Most occurrences of mental disorders can be rooted in dysfunctional social and home environments, consisting of child abuse, domestic violence, emotional distance, etc. [47].

The schemas of individuals are influenced by the information present in the environment, which could be selectively attended to, leading to development of stereotypes and biases. Hence, individuals are more likely to pay attention to information that agrees with their schemas [48]. By understanding the concept of cognitive schemas, sociologists have sought information about how culture influences behavior [49], in the context of parenting. A child's interaction with their parents prompts them to construct beliefs about the world, as they continue to interact with their relatives, friends, and people outside of their family and friend circle [50]. Exposure to abuse and neglect during childhood leads to the development of *early maladaptive schemas* (EMS), which affects the holistic development of children. Proposed by Young [51], EMS are a set of beliefs and values formed as a result of childhood abuse and neglect [52], or a set of rigid cognitive structures formed due to detrimental interactions with important individuals [53]. A combination of CEN, attachment and altered sensory processing is seen in patients with personality disorders, such as, Borderline Personality Disorder (BPD), a mental disorder with characteristics such as impulsivity, a negative self image, inadequate affect regulation etc. [54]. Negative biases are formed as they show negative reactions to various environmental and social stimuli, affecting affective processing [55]. This leads to nonrecognition of social cues, and attachment issues, due to difficulties in processing emotions.

V. CONCLUSION

This study aimed to analyse the long-term effects of emotional neglect on the tactile and psychosocial development of children. Using multiple sensory modalities, the brain processes the world, from which people derive meaning from the environment. Emotions are conveyed through touch, making it the most fundamental sense developed in babies. Interactions with social agents like family members, friends, etc. form the basis of relationships, influencing behavior and perceptions of intimacy [56]. The sensory-discriminative dimension and the affective-motivational dimension are activated upon the firing of tactile receptors, as individuals touch objects or experience pleasant touch [57]. The combination of positive emotionality and an abundance of affective touch leads to strong affective bonds, while negative emotionality and high frequency of negative physical contact results in negative relationships. The overuse of harsh parenting styles leads to reduced experiences of affective touch, altering sensory development and emotional regulation. The SSA Model tests the relationship between parental emotional unavailability and tactile perception development. The possible results were listed as altered tactile processing, altered perception of affective touch, and impaired attachment, which are affected by factors such as cognitive schemas, personality traits, and parenting styles. Limited studies exist that explain the relationship between parental emotional neglect and tactile perception development, which led to the use of the conceptual review methodology, reflecting potential biases in the interpretation of this relationship and its factors. This study did not address additional factors such as the roles of secondary caregivers or the strength of emotional resilience of children in adverse situations, when understanding this relationship. Difficulties were experienced in searching for information about the altered perception of affective touch. Longitudinal studies and experiments can be conducted on a diverse population, to gather empirical evidence to determine the cause-and-effect relationship between parental emotional neglect and tactile perception development. Scientists can develop and improve intervention techniques to address deficiencies related to sensory development. Questionnaires and mental health surveys may be developed to determine a person's capability for parenting and caretaking, assessing their perception of the fundamental developmental requirements of children.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to MIE-SPPU Institute of Higher Education, Doha-Qatar, for providing the academic environment and resources that supported the development of this review paper. We also acknowledge the support and encouragement from the faculty and peers, which contributed to the completion of this work.

REFERENCES

- [1]. Bremner, A. J. (2020). *The Development of Touch Perception and Body Representation*. Cambridge University Press EBooks, 238–262. <https://doi.org/10.1017/9781108351959.009>
- [2]. Abaira, V. E., & Ginty, D. D. (2013). *The sensory neurons of touch*. *Neuron*, 79(4), 618–639. <https://doi.org/10.1016/j.neuron.2013.07.051>
- [3]. Lange, J. (2022). *Sensory Modalities and General Senses*. Medicine LibreTexts. [https://med.libretexts.org/Bookshelves/Anatomy_and_Physiology/Human_Anatomy_\(Lange_et_al.\)/13%3A_Somatic_Senses/13.02%3A_Sensory_Modalities_and_General_Senses](https://med.libretexts.org/Bookshelves/Anatomy_and_Physiology/Human_Anatomy_(Lange_et_al.)/13%3A_Somatic_Senses/13.02%3A_Sensory_Modalities_and_General_Senses)
- [4]. Stiefel, K. M., & Holcombe, A. O. (2014). *Neurocomputation and Coding in the Claustrum*. Elsevier EBooks, 193–207. <https://doi.org/10.1016/b978-0-12-404566-8.00006-4>
- [5]. Kaas, J. H. (1995). *Somatosensory system*. International Centre for Theoretical Physics. <https://indico.ictp.it/event/a02295/contribution/36/material/0/0.pdf>
- [6]. Benoit, B., Boerner, K., Campbell-Yeo, M., & Chambers, C. (2016). *The Power of Human Touch for Babies*. Canadian Association for Paediatric Health Centres. https://www.blossomandberry.com/wpcontent/uploads/2016/11/The_Power_of_Human_Touch_for_Babies.pdf
- [7]. Souza, R. A. S., Cavalcante, E. V. V., Macedo, C. A., Freitas, S. G., Figueiredo, A. T. P., Alves, S. A., Silva, T. C. A. C., de Albuquerque Souza, G. F., & Alves, J. G. (2019). *The impact of maternal touch of the abdomen on cardiocography fetal patterns*. *Brain and behavior*, 9(8), e01345. <https://doi.org/10.1002/brb3.1345>
- [8]. Kisilevsky, B. S., Muir, D. W., & Low, J. A. (1992). *Maturation of human fetal responses to vibroacoustic stimulation*. *Child Development*, 63, 1497–1508. <https://doi.org/10.2307/1131571>
- [9]. Montagu, A. (1984). *The skin, touch, and human development*. *Clinics in Dermatology*, 2(4), 17–26. [https://doi.org/10.1016/0738-081x\(84\)90043-9](https://doi.org/10.1016/0738-081x(84)90043-9)
- [10]. Feldman, R. (2011). *The Relevance of Touch for Development and Health*. Ruth Feldman Lab. <https://ruthfeldmanlab.com/wpcontent/uploads/2019/06/touch-and-the-developing-infant.chapter.proofs.pdf>
- [11]. Field, T. (2010). *Touch for socioemotional and physical well-being: A review*. *Developmental Review*, 30(4), 367–383. <https://doi.org/10.1016/j.dr.2011.01.001>
- [12]. Bellieni, C. V., Cordelli, D. M., Marchi, S., Ceccarelli, S., Perrone, S., Maffei, M., & Buonocore, G. (2007). *Sensorial saturation for neonatal analgesia*. *Clinical Journal of Pain*, 23, 219–221. <https://doi.org/10.1097/AJP.0b013e31802e3bd7>

- [13]. Harlow, H. F. (1959). *Love in Infant Monkeys*. Scientific American, 200(6), 68-75. <http://www.jstor.org/stable/26309508>
- [14]. Harlow, H. F. (1958). The nature of love. *American Psychologist*, 13(12), 673-685. <https://doi.org/10.1037/h0047884>
- [15]. Spitz, R. A. (1945). *Hospitalism: An inquiry into the genesis of psychiatric conditions in early childhood*. Psychoanalytic Study of the Child. 1945;1:53-74. <https://doi.org/10.1080/00797308.1945.11823126>
- [16]. Zhou, X., Huang, J., Qin, S., Tao, K., & Ning, Y. (2023). *Family intimacy and adolescent peer relationships: investigating the mediating role of psychological capital and the moderating role of self-identity*. *Frontiers in psychology*, 14, 1165830. <https://doi.org/10.3389/fpsyg.2023.1165830>
- [17]. Lambert, N. M., Stillman, T. F., Baumeister, R. F., Fincham, F. D., Hicks, J. A., & Graham S. M. (2010). *Family as a salient source of meaning in young adulthood*. *J. Posit. Psychol.* 5, 367-376. <https://doi.org/10.1080/17439760.2010.516616>
- [18]. Ranson, K. E., & Urichuk, L. J. (2008). *The effect of parent-child attachment relationships on child biopsychosocial outcomes: a review*. *Early Child Development and Care*, 178(2), 129-152. <https://doi.org/10.1080/03004430600685282>
- [19]. Clark, E. L. M., Jiao, Y., Sandoval, K., & Biringen, Z. (2021). *Neurobiological Implications of Parent-Child Emotional Availability: A Review*. *Brain sciences*, 11(8), 1016. <https://doi.org/10.3390/brainsci11081016>
- [20]. Grych, J. H. & Fincham, F. D. (2001). *Interparental conflict and child development: theory, research, and applications*. Cambridge University Press.
- [21]. Sanvictores, T., & Mendez, M. D. (2022). *Types of Parenting Styles and Effects on Children*. National Library of Medicine; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK568743/>
- [22]. Espada, J. (2025). *Exploring the Influence of Childhood Experiences with Physical Touch on Parenting Styles: A Cross-Generational Analysis*. *Asian Journal of Social Sciences and Legal Studies*, 374-386. <https://doi.org/10.34104/ajssls.025.03740386>
- [23]. Bremner, A. J., & Spence, C. (2017). *The Development of Tactile Perception*. *Advances in Child Development and Behavior*, 52, 227-268. <https://doi.org/10.1016/bs.acdb.2016.12.002>
- [24]. Longa, D. L., & Farroni, T. (2025). *Touching Emotions: How Touch Shapes Facial Emotional Processing Among Adolescents and Young Adults*. *International journal of environmental research and public health*, 22(7), 1112. <https://doi.org/10.3390/ijerph22071112>
- [25]. Hugill, K. (2015). *The senses of touch and olfaction in early mother-infant interaction*. *Journal of Health Visiting*, 3(12), 654-658. <https://doi.org/10.12968/johv.2015.3.12.654>
- [26]. Takeuchi, M. S., Miyaoka, H., Tomoda, A., Suzuki, M., Liu, Q., & Kitamura, T. (2009). *The Effect of Interpersonal Touch During Childhood on Adult Attachment and Depression: A Neglected Area of Family and Developmental Psychology*. *J Child Fam Stud* 19, 109-117. <https://doi.org/10.1007/s10826-009-9290-x>
- [27]. Field, T. (1994). *The Effects of Mother's Physical and Emotional Unavailability on Emotion Regulation*. *Monographs of the Society for Research in Child Development*, 59(2/3), 208. <https://doi.org/10.2307/1166147>
- [28]. Addabbo, M., Licht, V., & Turati, C. (2021). *Past and present experiences with maternal touch affect infants' attention toward emotional faces*. *Infant Behavior and Development*, 63, 101558. <https://doi.org/10.1016/j.infbeh.2021.101558>
- [29]. Flacking, R., Lehtonen, L., Thomson, G., Axelín, A., Ahlqvist, S., Moran, V. H., Ewald, U., Dykes, F., & Separation and Closeness Experiences in the Neonatal Environment (SCENE) group (2012). *Closeness and separation in neonatal intensive care*. *Acta paediatrica* (Oslo, Norway: 1992), 101(10), 1032-1037. <https://doi.org/10.1111/j.1651-2227.2012.02787.x>
- [30]. Perry, B. D. (2002). *Childhood Experience and the Expression of Genetic Potential: What Childhood Neglect Tells Us About Nature and Nurture*. *Brain and Mind* 3, 79-100 (2002). <https://doi.org/10.1023/A:1016557824657>
- [31]. Spear, L. P. (2013). *Adolescent Neurodevelopment*. *Journal of Adolescent Health*, 52(2), S7-S13. <https://doi.org/10.1016/j.jadohealth.2012.05.006>
- [32]. Perry, B. D. (2000). *Traumatized children: how childhood trauma influences brain development*. *J. California Alliance Mentally Ill*. 2000; 11: 48-51.
- [33]. Winston, R., & Chicot, R. (2016). *The importance of early bonding on the long-term mental health and resilience of children*. *London Journal of Primary Care*, 8(1), 12-14. <https://doi.org/10.1080/17571472.2015.1133012>
- [34]. Calkins, S. D., & Hill, A. (2006). *Caregiver influences on emerging emotion regulation: Biological and environmental transactions in early development*. In J. J. Gross (Ed.) *Handbook of Emotion Regulation* (pp. 606-615). New York: Guilford Press.
- [35]. Fairhurst, M. T., McGlone, F., & Croy, I. (2022). *Affective touch: a communication channel for social exchange*. *Current Opinion in Behavioral Sciences*, 43, 54-61. <https://doi.org/10.1016/j.cobeha.2021.07.007>
- [36]. Gordon, I., Voos, A. C., Bennett, R. H., Bolling, D. Z., Pelphrey, K. A., & Kaiser, M. D. (2011). *Brain mechanisms for processing affective touch*. *Human Brain Mapping*, 34(4), 914-922. <https://doi.org/10.1002/hbm.21480>
- [37]. Easterbrooks, M. A., Chaudhuri, J. H., & Gestsdottir, S. (2005). *Patterns of emotional availability among young mothers and their infants: A dyadic, contextual analysis*. *Infant Mental Health Journal*, 26(4), 309-326. <https://doi.org/10.1002/imhj.20057>

- [38]. Sturge-Apple, M. L., Davies, P. T., & Cummings, E. M. (2006). *Impact of Hostility and Withdrawal in Interparental Conflict on Parental Emotional Unavailability and Children's Adjustment Difficulties*. *Child Development*, 77(6), November/December 2006, Pages 1623–1641. <https://doi.org/10.1111/j.1467-8624.2006.00963.x>
- [39]. Turjeman-Levi, Y., & Kluger, A. N. (2022). *Sensory-processing sensitivity versus the sensory-processing theory: Convergence and divergence*. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1010836>
- [40]. Fox, N. A., Henderson, H. A., Marshall, P. J., Nichols, K. E., & Ghera, M. M. (2005). *Behavioral Inhibition: Linking Biology and Behavior within a Developmental Framework*. *Annual Review of Psychology*, 56(1), 235–262. <https://doi.org/10.1146/annurev.psych.55.090902.141532>
- [41]. Stern, D. (1985). *The interpersonal world of the infant*. New York: Basic Books.
- [42]. Preisler, G. (2004). *Sensory Deficits*. In *Blackwell Handbook of Infant Development*. Blackwell Publishing Ltd. <https://doi.org/10.1002/9780470996348>
- [43]. Aron, E. N., & Aron, A. (1997). Sensory-processing sensitivity and its relation to introversion and emotionality. *Journal of Personality and Social Psychology*, 73(2), 345–368. <https://doi.org/10.1037/0022-3514.73.2.345>
- [44]. Zingaretti, P., Petta, A. M., Cruciani, G., & Spitoni, G. F. (2019). *Tactile sensitivity, tactile acuity, and affective touch: from childhood to early adolescence*. *Somatosensory & Motor Research*, 36(1), 90–96. <https://doi.org/10.1080/08990220.2019.1604334>
- [45]. Haugaard, J. J. (2004). *Recognizing and Treating Uncommon Behavioral and Emotional Disorders in Children and Adolescents Who Have Been Severely Maltreated: Dissociative Disorders*. *Child Maltreatment*, 9(2), 146–153. <https://doi.org/10.1177/1077559504264311>
- [46]. Krause, E. D., Mendelson, T., & Lynch, T. R. (2003). *Childhood emotional invalidation and adult psychological distress: the mediating role of emotional inhibition*. *Child Abuse & Neglect*, 27(2), 199–213. [https://doi.org/10.1016/s0145-2134\(02\)00536-7](https://doi.org/10.1016/s0145-2134(02)00536-7)
- [47]. Kuo, J. R., Khoury, J. E., Metcalfe, R., Fitzpatrick, S., & Goodwill, A. (2015). *An examination of the relationship between childhood emotional abuse and borderline personality disorder features: The role of difficulties with emotion regulation*. *Child Abuse & Neglect*, 39(39), 147–155. <https://doi.org/10.1016/j.chiabu.2014.08.008>
- [48]. Dozois, D. J. A., & Beck, A. T. (2008). *Cognitive Schemas, Beliefs and Assumptions*. *Risk Factors in Depression*, 119–143. <https://doi.org/10.1016/b978-0-08-045078-0.00006-x>
- [49]. Boutyline, A., & Soter, L. K. (2021). *Cultural Schemas: What They Are, How to Find Them, and What to Do Once You've Caught One*. *American Sociological Review*, 86(4), 728–758. <https://doi.org/10.1177/00031224211024525>
- [50]. Sójta, K., & Strzelecki, D. (2023). *Early Maladaptive Schemas and Their Impact on Parenting: Do Dysfunctional Schemas Pass Generationally?—A Systematic Review*. *Journal of Clinical Medicine*, 12(4), 1263. <https://doi.org/10.3390/jcm12041263>
- [51]. Young, J. E. (1994). *Cognitive therapy for personality disorders: A schema-focused approach* (rev. ed.) Sarasota, FL: Professional Resource Press.
- [52]. Baykal, B. N., & Çınar, E. S. (2022). *Understanding Early Maladaptive Schemas Formation with Traumatic Experiences in Childhood: A Qualitative Study*. *Journal of Aggression, Maltreatment & Trauma*, 1–19. <https://doi.org/10.1080/10926771.2022.2088320>
- [53]. Basso, L. A., Fortes, A. B., Maia, C. P. E., Steinhorst, E., & Wainer, R. (2019). *The effects of parental rearing styles and early maladaptive schemas in the development of personality: a systematic review*. *Trends in Psychiatry and Psychotherapy*, 41(3), 301–313. <https://doi.org/10.1590/2237-6089-2017-0118>
- [54]. Lieb, K., Zanarini, M. C., Schmahl, C., Linehan, P. M. M., & Bohus, P. M. (2004). *Borderline personality disorder*. *Lancet*, 2004;364(9432):453–61. [https://doi.org/10.1016/S0140-6736\(04\)16770-6](https://doi.org/10.1016/S0140-6736(04)16770-6)
- [55]. Löffler, A., Kleindienst, N., Neukel, C., Bekrater-Bodmann, R. & Flor, H. (2022). *Pleasant touch perception in borderline personality disorder and its relationship with disturbed body representation*. *border personal disord emot dysregul*, 9, 3. <https://doi.org/10.1186/s40479-021-00176-4>
- [56]. Waqas, M., Hussain, Z., Ibrahimi, I., & Majid, A. (2024). *Investigating how Childhood Bonding Patterns Influence Adult Behavior and Intimacy*. *Review of Applied Management and Social Sciences*, 7(4). <https://doi.org/10.47067/ramss.v7i4.425>
- [57]. Björnsdotter, M., Gordon, I., Pelphrey, K. A., Olausson, H., & Kaiser, M. D. (2014). *Development of brain mechanisms for processing affective touch*. *Frontiers in Behavioral Neuroscience*, 8. <https://doi.org/10.3389/fnbeh.2014.00024>