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Introduction

This issue of DMM news focuses on psychosomatics. Our contributions range from a brief review of research, linking toxic stress in early care to parent-child relationship qualities which predict later mental and physical health outcomes, to three case studies examining patients that present with bodily responses to their relationship stress.

Nicola Sahhar writes about a patient with alexithymia, the inability to access and verbalize feeling states together with physical symptoms such as sighing or hand wringing. Franco Baldoni describes a patient that presented with life-threatening somatic complaints that appear to resolve after treatment focused on early and current disruptions in attachment relationships. Sally Bryne carries the issue to family treatment of a child's sudden-onset inability to walk. Alan Abbass writes about an approach to understanding these conditions as unconscious defences that can enable clinicians to directly diagnose emotional contributions to somatic complaints. Patricia Crittenden closes with a discussion of body and mind.

These articles show the potential for the DMM conceptualization of early attachment experiences to help understand complex difficulties, pose new questions requiring more study, and guide more effective treatment approaches.

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Nicole Letourneau Editor nicolel@unb.ca

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Toxic Stress in Early Caregiving & Child Health





Stress is a part of every life, even every day, and humans are well prepared to cope with stress. However, when the stress is too high or goes on for too long, changes can take place in both the body and the brain that affect development far into the future. For example, when infants and young children live in homes where caregivers suffer from mental illness, addictions or domestic violence, they are at risk for unpredictable, neglectful or abusive parenting. In these situations, the child's stress system is constantly set to "high" and such hyperarousal may result in (a) psychosomatic disorders, asthma and respiratory ailments (Costa-Pinto & Palermo-Neto, 2010; Kozyrskyj et al., 2008) and (b) changes to the structure

Nicole Letourneau & Gerry Giesbrecht

and function of some brain regions (Gunnar, Herrera, & Hostinar, 2009).

Stress and Changes in the Body

Glucocorticoids, such as cortisol, are secreted into circulation by the Hypothalmic Pituitary Adrenal (HPA) axis over the course of the day and, in most people, secretions increase in response to stressors. Activation of the HPA enables the mobilization of energy stores and increases heart rate, blood pressure, attention and awareness of the environment. When stress is controllable, brief and predictable, the HPA axis promotes adaption and resilience. But when challenges are uncontrollable, unpredictable, and pervasive, the stress may become "toxic" and alter HPA axis functioning.

Usually cortisol is secreted with a diurnal rhythm- a low level at waking, followed by a peak in midmorning and then a steady decline toward night. In mothers with postpartum depression, infants often have less decline over the day. In other words, they have a different pattern, characterized by persistently high cortisol over the afternoon. On closer inspection, infants of those mothers who use gentle touch, eye contact, smiling and contingent vocalization do reduce their cortisol levels in the afternoon (Letourneau, Watson, Duffett-Leger & Hegadoren, in review). This confirms in humans a process that has long been known in rat pups.

On the other hand, disruptive, abusive, neglectful or unpredictable experiences flood the brain with cortisol.

Chronic activation of the HPA axis has harmful consequences for child development. High, persistent doses of cortisol impair neuronal growth and dendrictic connections. In this way, toxic stress leaves a lasting biological fingerprint of damage on brain structure and function (Shonkoff, 2004).

Stress and Changes in the Brain

Two major brain regions that are affected by toxic stress are the hippocampus and the prefrontal cortex. These brain regions are related to memory and self-regulation and are the foundation of cognitive and social-emotional development. Over time, the effects of toxic stress on brain structure and function can lead to shifts in patterns of behaviour from context-responsive organization to more habitual, rigid, and stereotyped patterns. Such children are less capable of independent problem solving. The relation of exposure to maternal depression in the first two years of life and hyperactivity between two and eight years of age points to a potential outcome of chronic exposure to toxic stress (Letourneau et al., 2006). Evidence is also accumulating that toxic stress may influence the body's inflammatory response (Gunnar, et al., 2009)

Conclusions for Clinicians

The effects of toxic stress are particularly worrisome in early childhood because the brain is exquisitely sensitive to experience during this phase of rapid brain development. As well, children's future brain development builds upon current and past brain development. Thus, changes in brain structure and function due to toxic stress produce cumulative changesaffecting not only current aspects of development for a given stage, but also the next stage that builds upon previous growth. That is, the brain adapts to past and current circumstances and this can constrain individuals to those circumstances.

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Attachment in Action: Why Can't Nell Walk?!!

Eleven-year-old Nell came to hospital with severe abdominal pain. She was treated with IV fluids and strong analgesics, but no medical cause was found for her symptoms. Still, she reported so much pain that she could hardly move. When she walked, her gait was a spectacle of slow jerking movements accompanied by grunting, wincing, and blinking. The nurses noted an increase in her symptoms when family members were present.



Sally Byrne

Nell was referred to Psychological Medicine. She was noted to be perfectionistic, hardworking, and high achieving, but she looked very young with 2 pigtails and a soft-voice. But she was also controlling. Her family was highly solicitous of her needs and presented as harmonious, socially respectable, and without stressors. A diagnosis of Somatoform Pain Disorder and Conversion Disorder was made.

A SAA was conducted to identify Nell's self-protective strategy, stressors that troubled her, and any traumas and losses. Nell appeared to use both a compulsively compliant strategy (A4) and also punitive and seductive coercion (C5-6). There were also hints of something "wrong" at home and repeated suggestions that her mother was strained.

Our working hypothesis was that Nell used an A strategy of inhibition and performance that wasn't functioning anymore because being good and obedient no longer attracted sufficient attention. Consequently, she was trying out a rather desperate somaticized C strategy. The SAA, however, provided no information about why she needed to switch strategy.

At Christmas, Nell went home in a wheelchair for the 6 week holiday. Her abdominal pain had resolved, but she was still unable to walk and needed near constant care.

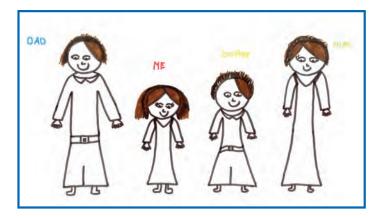
After the holiday, a highly structured rehab programme combined attendance at the hospital school, daily physiotherapy, individual psychological work, and weekly family sessions.

In these sessions, Nell's mother spoke of past marital tensions that almost led to separation and complained strongly about the burden of housework and

children. Nell's father perceived few problems and denied any marital conflict. Nell was keen to speak for her parents and pedantic in her attention to detail. Nell applied herself industriously to the rehab programme and was moving jerkily, but independently, within two weeks. She returned to regular school while attending daily outpatient psychological and physiotherapy, and monthly family sessions. Individual therapy gradually uncovered her acute awareness of marital tensions and her fear of divorce.

Nell's mother said that when her husband became frustrated, he verbally exploded at her and the children. In childhood, he had experienced frequent and intense conflict between his parents and recalled wishing his parents would separate. He believed that conflict tended to explode and then resolve and preferred this to the "repressed" style of his wife's family. To avoid conflict, Nell's mother was trying to handle difficulties on her own. This, in turn, led to her feeling terrible. The couple tried to hide their conflict by restricting it to empty rooms at home. When they were invited to discuss these issues in family sessions, Nell became physically agitated, then tried to defuse the tension with humour.

Slowly Nell's fears were addressed with her parents. Although they still minimized their disagreement, they were coached to provide more explicit information for Nell. However when Nell returned to functioning well with a pure compulsive



performance strategy, her parents ended treatment believing it unnecessary. Nell's SAA was helpful in pointing to marital issues as the true source of her distress, but reminds us that the SAA is not a stand-alone assessment; additional information is usually needed.

> Sally Byrne, Child Psychiatrist, Children's Hospital at Westmead Sydney, Australia

Alexithymia: Lacking Words for Feelings or Hiding Dangerous Information?

Alexithymia is characterized by an

inability to access and verbalize

feeling states, together with a

constricted ability in imagination

and an orientation toward external

details (Sifneos, 1973). Although

alexithymia is not mentioned in

DSM-IV or ICD-10, it is studied

by several researchers. A central

question is whether it is a linguistic

problem or an interpersonal, familial



Nicola Sahhar

An Empirical Study

To address this question, Adult Attachment Interviews (AAI) from patients with and without the diagnosis were classified using Crittenden's Dynamic Maturational Model classification method (DMM).

problem.

AAI's of patients with alexithymia were marked by

- A Type A3-6 compulsive self-protective strategy (A+)
- A few also had a coercive self-protective strategy (i.e., A+/C+)
- Triangulation
- Unresolved trauma and/or unresolved loss
- Depression (with A+ only)
- Expressed somatic symptoms ([ess]with A+/C+ only)

Compulsive strategies are characterized as inhibiting or falsifying true negative affect up to the extreme point of nonperception of any true negative affect, like sadness, anger and fear. Depression indicates a failure of existing self-protective strategies in the individual's current life situation; it functions to lower arousal and hold down affective expression. These classifications are consistent with not being able to verbalize feelings.

AAI's with expressed somatic symptoms are pervaded by intrusive bodily symptoms, such as loud and intensive breathing, that produce short interruptions of the interview and disrupt communication. Although somatic expressions deflect attention away from psychological and interpersonal issues, the speakers seem oblivious to the physical symptom as something meaningful. In this way, expressed somatic symptoms indicate a conflict between knowing and expressing: they contain implicitly forbidden information, which finds a way to be somatically expressed outside of conscious awareness.

As children, patients with AAI's classified as *Utr UI A+C+* [ess] appeared to have been pulled into family conflict around family secrets.

Case Study

Willi, a 50-year-old man, who was unhappy in his marriage, developed somatic symptoms including coronary spasms, hearing loss, contact dermatitis and testicular inflammation. During his AAI, he marked important information by deep inhalations and exhalations, sometimes combined with strong and unexpected crying where it seems not to be appropriate. In other places, he minimized affective expression while describing negative experiences.

As a child, his parents' marital relationship was strained by the frequent absence of the father. In addition, his father was violent to him and his mother did not protect him from the father. His way of telling about his family had disruptions and gaps that suggested he experienced something which was forbidden to be known because its disclosure would place the family unit in danger.

The AAI coding suggested a hypothesis: the probable adultery of both parents which, if revealed, could destroy the family. Thus the child's perception had to be denied and may have led to somatically represented information. In this case, Willi's breathing during the AAI matched breathing patterns during sexual

intercourse. Thus, the adultery may have been represented somatically such that it was inaccessible for symbolization and semantic expression (cf., Kraemer, & Loader, 1995; Sifneos, 1973; Sonnby-Borgström, 2009). This reduced interfamilial conflict, but was associated with bodily distress.

> Although it was not possible to support or refute this hypothesis with historical evidence, one can entertain the possibility

of a child being an involuntary witness of adulterous intimacy, listening to deep sighs and breathing of adults, without being able to integrate the information or allowed to understand what was happening. In such cases, Alexithymia points towards forbidden but involuntarily expressed information, which is not allowed to be put into words. The man's coronary spasms may thus be linked to his anxiety, loss of hearing to being witness of his mothers' affairs with other men, his contact dermatitis and testicular inflammation to his general conflicts around intimacy and sexuality.

If this is reasonably accurate, then the challenge for the therapist is to allow the development of shared attention towards true, but disguised, representations of self in relation to others, expressed in somatic symptoms.

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Sally Byrne, Child Psychiatrist, Children's Hospital at Westmead Sydney, Australia

The adaptive value of desperation in a case of psychosomatic breakdown following child sexual abuse

Desperation is a helpless mental state that drives people to abandon their usual behavior and to seek help from others (Crittenden 1997). It represents a last attempt to protect oneself by communicating one's state to someone else. Therefore, it reflects a final shred of hope and has adaptive value. A case study will illuminate this concept.

Cabò's Story

Cabò's is a 37-year-old married woman. In her adolescence, her parents separated after years of quarrelling and Cabò was left to live alone with her father. Later she married, became a mother, and began to suffer from anxiety, irritability, and bouts of explosive anger toward her husband and daughter. She presented to her physician with hyperthyroidism and exophthalmia (completely denied) which were resolved by medical treatment. After one year of DMM-oriented dynamic psychotherapy, her emotional condition improved and Cabò terminated treatment abruptly. Her physical symptoms had abated and her selfprotective strategy was repaired and functioning again.

Three years later her beloved grandmother died. Soon Cabó was hospitalized for severe gastrointestinal and urinary disorders, high fever, optical inflammation, and confused mental state; there was no medical evidence for her symptoms. Desperate and afraid of dying, she asked, crying, to speak with her husband and me and, for the first time, revealed

Franco Baldoni

that she had been sexually abused by her father. She also confessed to having had several extra-marital affairs.

Before the second bout of psychotherapy, I gave Cabò the AAI and used it to formulate her problems and structure the treatment.

DMM Formulation

The long-term problem. Cabò's AAI revealed a compulsive Type A strategy characterized by partial depression and unresolved trauma of sexual abuse: (Dp) Utr(p) sexual abuse A4-5 (7). Compulsive compliance (A4), promiscuous attitudes (A5), and dismissal of negative affect (A) were central to her functioning. Her father may have misinterpreted her behavior and given in to unregulated sexual signals (see Ferenczi 1933). Cabò dismissed the abuse for many years which hindered her learning how to develop safe sexual relationships. Her good looks ensured she would find attention and protection from others,

but this worsened her promiscuous tendencies. Thus, she seduced and was seduced by men without acknowledging her contribution. The inability to recognize and regulate emotions led to intrusions of negative affect and severe somatic reactions. Ignoring her fear and vulnerability had prevented her from seeking help (Baldoni 2010).

The Precipitating Crisis

The psychological and somatic symptoms that followed the death of her grandmother (an idealized attachment figure) were a serious threat to Cabò's life. Fearing death, she abandoned her usual self-protective strategy and became actively and visibly desperate. This enabled her to seek help from her attachment figures: her husband and her past psychotherapist.

The Treatment

Even before leaving hospital, she: (1) revealed the affairs and abuse, (2) expressed previously inhibited suffering, and (3) showed the signals of a preoccupied trauma (that was no longer blocked). This eliminated the physical symptoms and reduced dramatically the anger crises (intrusions of negative affect). With elaboration of the trauma, she improved her relationships with her husband and daughter in only a few months.

Cabò's story reveals how an attachment crisis in a compulsive Type A strategy with a blocked trauma led to strategy failure and somatic breakdown. Fear of death fostered expressed desperation that enabled Cabó to both seek help and also disclose past abuse. By using a crisis to change her strategy, she became physically well and improved her relationships and her safety.

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Detecting Somatization Using Intensive Short-Term Dynamic Psychotherapy



Interruption in attachments and interruption of efforts to attach, such as the death or illness of a parent, produces a cascade of complex emotions. These emotions include pain, rage and guilt about the rage in many cases. Davanloo (1990) from McGill University systematically observed these interactions and used them as the basis for the development of his model of Intensive Short Term Dynamic

Allan Abbass

Psychotherapy (ISTDP; see *figure on next page*.) Davanloo discovered that unconscious emotions such as grief, rage and guilt about rage generate unconscious anxiety. He observed four main patterns of bodily response we will describe below. Unconscious defenses such as isolation of affect, repression of affect and projection arise to quell these unconscious emotions. Davanloo's work enables us to directly diagnose such emotional contributors to somatic complaints.

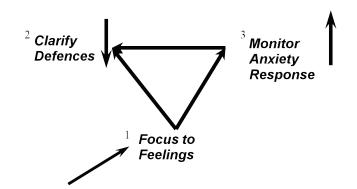
The first pathway is called the striated muscle discharge pattern. This pattern is seen clinically with hand clenching and sighing respirations which progress from the upper body and go downward. When there is full body tension there can be tics, spasms as well as subsequent pain. Hyperventilation can be a product of this due to excessive unconscious sighing.

The second pathway involves the smooth muscle. Smooth muscle is present in the bowel, airways, blood vessels and bladder. Preconscious learning according to behavioral learning principles disposes these muscles to acute or chronic spasm associated with a variety of common medical syndromes like migraines, hypertension, irritable bowel syndrome and reactive airway disease.

The third discharge pathway of unconscious anxiety is in the form of cognitive and perceptual disruption. The person can have blurry vision or complete blindness, interruption in hearing and other senses. The person can faint and hallucinate. This form of anxiety can be associated with psychotic moments.

The fourth pattern is that of motor conversion. With this pattern the muscles are weak and there is no evidence of other signs of unconscious anxiety. Thus, for example, the person can be relaxed but paralyzed in one of the limbs.

Actively mobilizing attachment-related feelings and traumarelated emotions can help the therapist detect the presence or absence of these somatic pathways in a given patient. When these emotions are mobilized, defenses are also mobilized. Faced with the patient's unconscious anxiety, the therapist is able to make a direct determination of unconscious contributors to somatic complaints.



The data in support of Davanloo's treatment model is quite extensive now with nineteen published clinical outcome studies (Abbass et al., 2008, 2009). Cost-effectiveness studies show the treatment reduces health service use, disability and medication use.

We have shown ISTDP to reduce repeat emergency department

visits in patients with medically unexplained symptoms. Based on this work we have been funded to hire a full-time psychologist to make these assessments in the emergency departments of our local hospitals.

For more information about this assessment and treatment model or any of these publications see www.istdp.ca

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Body or Brain? YES!

Body and brain are aspects of a single entity – a person! - and each affects the other. In this issue of the DMM News, we discuss 'psychosomatic' disorders, that is, problems in which the body seems to know what the mind cannot say.

Patricia Crittenden

You are probably familiar with 'cognitive' and 'affective' information

and representations. But had you noticed that we've added 'somatic' information and representation to the model? It's about time! After all, our first information in life is somatic and the most crucial information about staying alive is somatic. Indeed, so much information is represented somatically that a psychotherapist cannot afford to overlook this crucial, but inexplicit, source of information about personal well-being.

Allan Abbass provides a short list of physical markers to look for and citations of full papers to expand on his ideas. Nicole



Letourneau, the editor of this special issue of the DMM News, describes her research with babies of mothers with post-natal depression. Is her work on the babies' brain development important? Indeed it is for the 15% of babies born to depressed mothers: their brain development is at risk and thus their development as a whole is at risk.

Sally Byrne shows us how attachment can change our daily practice. Nell's belly hurts so much that she cannot walk, but

the doctors say she is fine. Read about her treatment and ask yourself: What is the difference between treatment that repairs a 'broken' non-B strategy (in Nell's case, compulsive performance) and treatment that *reorganizes* the strategy and also the family's functioning toward greater balance? If you decide that Nell and her family only returned to their previous state – the one that created Nell's symptoms, how could the therapist have convinced Nell's parents to remain in treatment longer so as to make enduring changes?

In Franco Baldoni's case of Cabó, we see both a *repaired* strategy after her first crisis and then a second crisis that results in a more thorough assessment, formulation, and course of treatment. The outcome is *reorganization* to a more adaptive self-protective attachment strategy.

Nicola Sahhar offers a very challenging hypothesis: Does Willi's groaning represent the forbidden-to-know information regarding his parents' marital infidelity? How could such a hypothesis be tested with a patient without giving him the therapist's possibly mistaken hypothesis?

The diversity of topics in this issue is very great – which shouldn't surprise us at all. Nothing happens behaviorally or psychologically without the body's participation. Indeed, when we hurt, whether from physical or psychological injury, the brain registers the same representation in the anterior cingulated cortex (Botvinik, et al., 2005; Eisenberger, et al. 2003)! To deliver healing psychological treatment, we must attend to both the body and the mind. That is, all behavior is 'psycho-somatic.'

Have you a puzzling case to share with us? An exciting triumph of therapeutic ingenuity? If you are a member of IASA, visit our forum at www.iasa-dmm.com and tell us about your experience. (If you aren't a member, why not join now!) Let's have a conversation!

Patricia M. Crittenden, Ph.D.. Family Relations Institute, USA

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