Dealing with Psychosomatic Conditions in Mental Health Practice and in Everyday Life–

Is There Any Help from Neuroscience?

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Psychosomatics is the most fascinating area of transdisciplinary clinical science and research that deserves more than the label—"It's all in your head"—because it starts in your "head" (aka mind), but it affects your whole being, physically, emotionally, mentally, and relationally.

Sigmund Freud could be called the *father of psychosomatics*, as he brought to light the origins of psychosomatic phenomena in neuroses, war trauma, and hysteria (a modern conversion disorder). He also was the first one to talk about the connection of organic symptoms to mental mechanisms of their origins. And, he spoke about utilizing psychoanalytic treatment for psychosomatic conditions, saying: "the psychoanalytic treatment of obvious organic disturbances is not without a future, since it is not unusual for a psychic factor to play a role in the genesis and persistence of these affections" (Freud, 1923). In his dialogues with Ferenczi, Freud admitted the connection between the depressive phenomena and (his) somatic illness, while he did not deal with treating these and avoided talking about himself in those terms (Haynal, 2008).

Overall, the 20th century can be called a century of psychosomatics. In 1948, *Studies in Psychosomatic Medicine*, Alexander et al. detailed particular unconscious conflicts associated with individual disorders. For example, Alexander et al. (1948) saw peptic ulcers as a representation of the faulty coping mechanisms of one's infantile oral dependency, which—when stress is fairly consistent—can lead to the development of the actual ulcers in the stomach. Other psychosomatic localizations were seen as various other conflicts: hypertension was linked to repressed hostility, and bronchial asthma—with fear of separation, and so forth.

Later in the 20th century, the Object Relations psychoanalyst Joyce McDougall talked about "theaters" of the mind and of the body, borrowing the metaphor of a theater from Anna O, who mentioned that the free associations during her therapy (with Breuer and Freud) were her "private theater." Joyce McDougall called the body theater "the psychosoma on the psychoanalytic stage." So, her 1989 book, *Theaters of the Body: A Psychoanalytic Approach to Psychosomatic Illness*, became a revelation to psychoanalysts of various schools of thought, and it offered the opportunity for them to appreciate the connection between the body/soma and the mind. McDougall wrote that the "severe split between psyche and soma ... was due to our patients' unawareness of their emotional states in threatening situations. The curtains on the mind's stage were tightly drawn, so to speak; no sound reached the outside ears, and yet a drama was being played out in this secret theater that threatened the very life of the theater owner himself." McDougall also spoke about "psychosomatic potentiality" that is related to the pronouncement of the psychic stress related dramas in so-called "locus minoris" (a weak spot/organ/system of our body). This weak spot could be any organ or system of the body—cardiac (Ballone, 2015; Capitão, 2015; Tamagnini, 2014), pulmonary (Sikter et al., 2017), gastro-intestinal (Enck et al., 2016), skeleto-muscular (Sarno, 2018), and so forth.

Joyce McDougall (1989) also spoke in this book about alexithymia (i.e., apparent lack of affect), explaining that patients with this condition seem to be "speaking through their bodies" rather than processing their conflicts through the mind. That is why these individuals present a challenge to the traditional psychoanalytic ("talking cure") approach.

Related to the above are the observations of researchers who connect early (preverbal) traumatic life events to development of psychosomatic conditions (Karunanayake et al., 2022). It is interesting that "traumatic" events do not have to be overtly traumatic, but could include prenatal maternal complications, interventional deliveries, or stopping breastfeeding early. Another researcher showed that these changes are related to psycho-neuro-endocrine and immune disbalance (Bitzer-Quintero et al., 2022).

What about neuroscience? Could it help us to feel a perceived gap and/or a feeling of disconnect when we try to treat patients "comprehensively," "holistically," with a patient-centric approach?

Yes, there is light at the end of the tunnel! In the last two to three decades, neurobiological research started to reveal important neurological mechanisms of the mind/brain dyad and body (soma) interactions, which is at the

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core of the modern field of psychosomatics. Still, most medical schools do not teach future physicians the basics of psychology or psychoanalysis. Even one's mind and his/her brain are not seen (or taught) as a dyad at play, even in neurology training. The same goes for training in the mental health field—"somatic" questions (aka those that pertain to one's physical/ medical state) are contemplated very little or not at all.

This does not stop transdisciplinarians from continuing to connect the dots and trying various theories to explain psychosomatic conditions. For example, recently, neurobiological researchers utilized trans-neuronal transport of a (rabies) virus to identify regions of the cerebral cortex that have multi-synaptic connections with a major sympathetic organ, the adrenal medulla (which produces adrenaline, which we need to produce fight-and-flight reactions). They found that there are three distinct networks that are involved in movement, cognition, and affect, which are linked to the function of internal organs (Dum, Levinthal, & Strick, 2019).

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Other examples involve taking a placebo and getting positive, healing, results (Grainger, 2022). And some other examples include clinical observations by physicians-internists about three specific emotions—guilt, envy, and feeling resentment/upset—correlating with the majority of gastrointestinal, cardiovascular, cancerous, and other medical conditions (if these emotions are chronic and unprocessed) (Evdokimenko, 2020).

What is the contribution of Functional Neuro-Psycho-Biology to the field of psychosomatics? It is about truly connecting the psyche/mind and the body/soma—through the "brain" ("neuro") part. The "neuro" part is represented by the central nervous system (the brain and the spinal cord, with all connecting pathways), the peripheral neural system (the nerves and plexuses serving the skeletomuscular system, skin, and others), and the autonomic nervous systems (sympathetic and parasympathetic).

Finally, in recent decades, the autonomic nervous system has been given the proper attention by therapists of various fields and even by mental health practitioners and theoreticians! But unfortunately, the two parts of the autonomic nervous system are presented as adversaries. They are not. The sympathetic and parasympathetic systems are partners: the first one helps us to deal with stress, the fight-and-flight state, and to be on alert; while the second one helps us to rest, digest, and eliminate. These two parts of the autonomic nervous system are also involved in hormonal production, so disbalance of the autonomic function leads to disbalance in the whole-body-machine.

Functional Neuro-Psycho-Biology is a method of looking at one's functioning through the lens of the brain/mind dyad, while integrating the Triune Brain theory (of Paul MacLean), Polyvagal theory (of Stephen Porges), and Attachment theory (of John Bowlby and Mary Ainsworth)—with an understanding of neuroanatomy, neurophysiology, and basic neuroscience. One cannot talk about any approach to treatment of brain-mind-body disorders if it is devoid of basic conceptualizations of neurobiology: neuroplasticity, neuro-integration, brain laterality, synaptic pruning, neuro-networking and connectomes, electro-chemical conduction of impulses, as well as the neural phenomena of "what fires together—wires together," "don't use it—lose it," "connected together—grow together," and others.

This way, Functional Neuro-Psycho-Biology represents a truly "wholistic" approach to understanding health and disease, physical, mental, or psychosomatic. It also provides a platform for creative (and sometimes simple) healing solutions. For example, multiple double-blinded and placebo-controlled studies that looked into practices

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of visualizations and mental imagery, holistic breathing, meditative and mindfulness techniques, energy healing, hypnotherapy, and intentional use of positive emotions (training)—all point to bilateral connections between the psyche and the soma, such as bottom-up processing and top-down regulation (an important part of the Functional Neuro-Psycho-Biology system), which can make-or-break psychosomatic illness (Busch et al., 2012; Flammer & Alladin, 2007; Fredrickson et al., 2002; Grant, 2014; Hamrouni, 2015; Häuser et al., 2016; Jinich-Diamant, 2020; Karampas et al., 2016; Meredith & Eden, 2020; Tugade & Fredrickson, 2004; Wielgosz et al., 2022; Zeidan et al., 2010).

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