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Book Review

Imagery for Pain Relief: A Scientifically Grounded Guidebook for Clinicians by David Pincus and Anees Sheikh. New York: Routledge, 2009. 310 pages. hc ISBN 978-04159-97027.

Imagery for Pain Relief: A Scientifically Grounded Guidebook for Clinicians by David Pincus and Anees Sheikh is a clearly written, well-crafted book that fully accomplishes the agenda it lays out from the outset. The authors choose a tiny slice of clinical practice, which naturally constrains the topic material to manageable levels. Around this highly specialized area, a pastiche of research, theory and guidelines for practice implementation is woven. The book starts with a primer on pain, covering the varieties of its experience, plus physiological, personality and social factors relevant to its origins. Next is a multicultural, historical look at the role of imagery in healing. Topics range from imagery in shamanic and spiritual practices through the ages, to early origins of psychoanalysis, to hypnosis treated in this book as a form of guided imagery, to Jung's active imagination.

In order to reconcile ancient holistic tradition with techniques from modern medicine *Imagery for Pain Relief* adopts dynamical systems theory as its theoretical framework. Nonlinear science is attractive for its system outlook, cross-disciplinary nature and capacity to generate general principles. The holistic approach carries the promise of shedding light on how and why imagery works to heal pain. Pincus and Sheikh describe pain as a dynamical system that emerges through a critical point, or bifurcation, to then take on a life of its own via self-organizing tendencies. They adopt a complexity model of health, suggesting that imagery heals by allowing for integration and adaptation in the flows of information within the consciousness of the body-mind. Imagery helps to release blocked flows of information to restore the system towards greater integrity, flexibility and complexity, along with enhanced capabilities for self-regulation.

Upon establishing theoretical foundations in the first half of the book, the authors turn to the practice of imagery therapy in the second half. They lay out what a first session might look like, emphasizing the importance of enhancing patient motivation. They discuss imagery skills training and how to move into an active phase of treatment that collaboratively draws upon the patient's lead in producing and following imagistic trails. Next, the book presents a variety of pain management techniques, beginning with simple, symptom-focused methods, such as relaxation imagery, mental rehearsal, and tools for the transformation of pain. The authors proceed to deeper, more holistic ways of drawing in the whole person.

The book winds up with the specialized topic of how to adapt imagery for pain relief in children, whose pain often has been discounted and overlooked medically. While children are particularly adept at producing and responding to imagery, they have special developmental needs in accordance with their capacity for emotional regulation and stage of symbolic representation. A systems view helps to understand the role of the family in responding to children's pain. The Five-R model (Pincus, 2001) defines the family system as a self-organizing information processing system as follows.

> (g)lobal order emerges from the interaction of component parts within the system (i.e., mind emerges from information flows among neurons), which then serves to feed back down to constrain these component parts (i.e., mental processes serving to regulate subsequent neuronal interaction patterns).
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> When conceptualized as self-organizing and thus self-regulating information processors, family conversations patterns, patterns of family relationships, and broader culture within each family take on a deeper and more specific meaning. At the same time, one can make direct predictions about the ways the family system will impact the child; for example, levels of flexibility and integrity in the flows of information about the child's pain within the family system is associated with levels of flexibility and integrity within the flows of information in the imagery of the child (p. 235).

With information processing dynamics within the child seen as reflecting family dynamics more broadly, the model lends five different levels for possible intervention within the family: (a) *rules* as directly governed flows of information; (b) *roles* as collection of rules carried by individuals within the family; (c) *relationships* as constellations of role configurations; (d) *realities* as broad coherent patterns of information flow within the family system; (e) *response patterns* as observable sequences of information exchange among family members.

Generally I found *Imagery for Pain Relief* highly readable and filled with practical suggestions. The writing style is rich with visual imagery, including metaphors that help to embody the book's ideas. There is only one area where I took issue. Although I would like to dismiss theoretical orientation as a mere matter of taste and style, I can't. From a scientific perspective, where truth trumps relativism, I believe the cognitive framework of this book presents unfortunate limitations, especially for addressing somatic symptoms like pain.

Let me start with underlying physiology covered in the book. As the authors note, pain is a highly complex, multifaceted phenomena partaking of somatic, emotional and cognitive elements. To address this complexity, the authors choose the gate theory of pain. Developed by Melzack and Wall in 1965; this represents the first major attempt to link psychosocial with physiological processes in pain perception. The gate theory focuses on the dorsal horn of the Substantia Gelatinosa in the spinal cord, which is identified as the physiological "gate" between body and mind amidst three interacting dimensions of the pain experience — sensory-discriminative, motivational-

affective, and cognitive-evaluative. Despite its update (Melzack, 1999), the gate theory was developed prior to brain imaging techniques such as functional magnetic resonance imaging (fMRI) or positron emission tomography (PET) that allow in vivo recording of pain-sensitive brain regions of the brain (see Borsook, Sava & Becerra, 2010).

Here we see the importance of affective substrates to pain, yet this book's cognitive approach views imagery as a "schema portal" for addressing "pain narratives." Such an approach over-emphasizes verbal thought, directed will, and purposeful action, all characteristics of the left-brain. The left-brain's language-driven, explicit, and conscious processes reach superficially into the body through the striated muscle system, designed to coordinate the body's motor activity. By contrast the right-brain reaches deep into the body through limbic circuits and the autonomic nervous system, whose non-conscious, implicit, nonverbal processes regulate both emotion and stress (see Schore, 2003a, 2003b). Evidence mounts from electrical stimulation, lesion studies and functional imaging that pain processing is not a left-brain function, but instead is highly lateralized to limbic and autonomic structures of the right-hemisphere (e.g., Graff-Guerrero et al., 2005; Ji & Neugebauer, 2009; Rainville, Duncan, Price, Carrier, & Bushnell, 1997). These studies concentrate on somatic pain, while transcranial magnetic stimulation (rTMS) of healthy subjects supports right-hemisphere processing of negative or withdrawal-related experiences related to emotional pain (Schutter, van-Honk, d-Alfonso, Postma, A., de-Haan et al., 2001).

On the one hand, Pincus and Sheikh taut the healing power of imagination and imagery partly for its nonverbal and integrative capacities. On the other hand, they erroneously present guided imagery as the "most effective cognitive technique" available, while reducing images to "experiential thoughts." They place imagery "at the center of consciousness," and even point to evidence that the purely cognitive strategy of self-talk can interfere with the positive effects of imagery (Hackett & Horan, 1980). Yet because they make no distinction between the verbal, conscious left-brain and the imagistic processing of the right-brain, this all becomes quite confusing.

In a similar vein, the authors point towards the centrality and uniqueness of the patient-therapist relationship: "This role of the therapist as partner may be different from that of other health practitioners, who assume direct control to take steps to get rid of the pain immediately or to express sympathy (i.e., pity) rather than empathy (i.e., understanding) (p. 110)." Elsewhere one of the authors (Baer, Hoffman, & Sheikh, 2003) even describes how the "inner physician" operates within positive expectations and the doctor patient relationship. Yet due to the limitations of the cognitive framework, along with its one-person psychology, Pincus and Sheikh miss the opportunity to extend the principles of emergence, self-organization, bifurcation, etc. to the patient-therapist as a coupled system.

In sum, by overlooking the role of non-conscious, implicit flows within an intersubjective context, the cognitive framework represents a paradigm clash with the nonlinear, systems perspective held by these very same authors. Pincus and Sheikh possess important pieces of the puzzle. It is unfortunate that their cognitive lenses did not allow them to fully capitalize on their own broad vision

in order to apply the same nonlinear principles to an even more holistic view that links the bodies, brains and minds of therapist and patient during the therapeutic encounter. But this difference in underlying perspective is theoretical only, and doesn't change the strategies recommended or their effectiveness in reducing pain. For this reviewer, to include this broader context would have been the icing on the cake. But fortunately the cake contains such rich ingredients so beautifully cooked, that it is definitely worth buying and eating the cake, even without the icing.

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– Terry Marks-Tarlow
Clinical Psychologist
Santa Monica, CA
markstarlow@hotmail.com