the therapeutic dyad and the need for the clinician to be in tune with the patient and his or her affective state and to be in the moment with the patient. Even Greenson's book, although describing traditional analytic technique, includes chapters on the working alliance and the real relationship between the patient and the analyst that are applicable to many therapy settings today.

I would venture to say that many of our current and recent trainees have not been exposed to (most of) these works. I have no problem with this, but I do have a problem with training that does not stress the fundamental importance of attention to the relationship. How many times have we heard residents state, "This is a medication case, not a psychotherapy case"? I know exactly what they mean, but the implication is that the relationship with a patient seen for medication is not a therapeutic one in the same sense as it is for a "psychotherapy" patient. I have often thought that the best psychopharmacologists I know also have wonderful psychotherapy skills. I have no data, but I would guess that the psychopharmacologist who does not truly engage a patient will do many one-time consultations with little follow-up.

So, in trying to fulfill the editor's wish to "look ahead," I hope we do so with the understanding that healing is a process, often involving two people (although it certainly can involve more), where the healer must use skills over and above those specific to pharmacology, neuromodulation, virtual reality, deep brain stimulation, or whatever new treatment is shown to be helpful. And these skills are embedded in the relationship between healer and patient, as Frank so eloquently taught us.

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# Heat: A New Approach to Treating Depression?

Given the well-characterized limitations of standard antidepressant therapies (1) and the inconveniences of somatic therapies, such as electroconvulsive therapy and transcranial magnetic stimulation (2), psychiatry remains on the lookout for novel approaches to treatment of major depressive disorder (MDD). Ideally, we would like treatments that are fast-acting, safe, and convenient to obtain. The successful development of these therapies will require a

better understanding of the mechanisms of depression and how to directly target them.

Recently, heat has emerged as a potential treatment for depression. Back in 1995, it was reported that high fevers could alleviate depressed states (3). Because body temperature rises during a febrile state, could heat be a potential treatment for depression? Recently, Janssen and colleagues studied a form of whole-body hyperthermia (WBH) as a potential antidepressant therapy (4). In this randomized controlled study, a small sample of patients with MDD who were not receiving medication treatment were randomly assigned to a single session of WBH or to a sham intervention. Patients who received WBH responded quickly, and the benefit was maintained for at least six weeks. These exciting results, if replicated, could have major implications for the treatment of depression.

Other recent novel work has focused on a form of yoga practiced in a heated room for the treatment of depression. Parkin and colleagues have completed a pilot open-label study of heated yoga in a small sample of people with depression, with encouraging preliminary results (5). Currently, these investigators, under the direction of Dr. Maren Nyer, are carrying out the first randomized controlled study of heated yoga for MDD (NCT02607514). Although there is some evidence that yoga may have antidepressant benefits, this is the first time that a heated form of yoga has been rigorously studied specifically for MDD. If heated yoga is effective, it will be important to characterize the role of heat as part of this yoga's antidepressant component. Are the yoga postures the key to efficacy, or is the heat component equally important? Is there a synergy between the yoga postures and heat?

If heat has an antidepressant effect, how might it work? It has been suggested that heat can might alleviate depression by stimulating immune activity, much like a febrile response (3). Given the known relationship between depression and inflammation, this seems like a reasonable model. Nyer and colleagues' yoga study will examine various inflammatory biomarkers as moderators and mediators of treatment response, and it is hoped that these will clarify how and why heated yoga may work for depression. Investigations of this sort with WBH are also in progress (Raison CL, personal communication). Others have suggested that heat therapy may alleviate depression by sensitizing thermoregulatorycooling physiological pathways that may affect brain regions implicated in mood regulation (6). Clearly, many exciting questions remain to be answered.

With growing rates of MDD (7), the continued development of rapid-acting therapies is essential, and in time, heatbased therapies may become a vital part of psychiatry's armamentarium.

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## A "New" Model for Consultation-Liaison Psychiatry

Liaison psychiatry emerged in the 1930s to integrate psychiatry with other branches of medicine (1); however, the liaison aspects of consultation-liaison psychiatry faded away because of financial constraints (2). Timely identification of psychiatric disorders of people who have a general medical illness is essential to providing care to hospitalized patients. Untreated psychiatric symptoms, such as malignant denial of illness (3, 4) and depression (5, 6), may never resolve spontaneously, leading to a pattern of rehospitalization with no improvement in the patient's outcome. Thus, inadequate attention to the patient-physician relationship and patients' psychosocial needs jeopardizes the welfare of patients and promotes dissatisfaction and burnout of staff. In short, as the liaison model has eroded, the need for it has only increased. Interdisciplinary approaches to patient care are often idealized. Most of the research on collaborative care has been done in outpatient settings (7). A meta-analysis of interdisciplinary team interventions on medical wards found that 70% did not reduce length of stay (LOS) (8); however, the consultation-liaison program at Yale demonstrated a reduction in LOS (9).

A philanthropic donation in 2009 allowed a high-volume, high-acuity urban teaching hospital to hire an inpatient comanagement care psychiatrist. The expectation was that facilitating psychiatric evaluation and treatment of medical patients, using a traditional consultation-liaison model, would result in better patient care and greater satisfaction with psychiatry services on the part of medical consultees. When patients stay beyond the expected LOS, each extra day is "lost" to the hospital; in other words, there is no payment for these extra days. Were that bed now filled with a new patient, the hospital would receive payment. The addition of an inpatient comanaging psychiatrist in the Division of Hospital Medicine was intended to decrease lost days.

After the comanaged care team was established, it became apparent that the proactive involvement of the psychiatrist contributed to a reduction in LOS for patients who required psychiatric consultation, resulting in financial benefit to the hospital. The hospital made an investment by expanding the program (adding a second psychiatrist and a social worker) with the expectation of additional financial benefit.

There was a decrease in LOS for patients seen in the comanaged care model (compared to those seen via the traditional consultation-liaison referral model). Comanaged patients were seen earlier in the hospital stay. Limiting the analysis to patients with LOS of ≤10 days (N=324) and adjusting for case-mix index and diagnosis-related anticipated LOS, we found a mean reduction in LOS of 1.19 days. (t=2.97, p<.003; 95% confidence interval of 0.40-1.98) (10). The percentage of patients staying longer than five days was reduced from 59% to 34%. Based on the analysis conducted by hospital administration on the program, there was an estimated annualized saving of 2,889 hospital patient-days. With a conservative figure of \$600/day for each "lost" day, the program prevented the hospital from losing \$1,733,400.

A program such as the one we created might not succeed in every institution. Comanaged care provides a route to enhancing the ability of psychiatrists to manage patients and to simultaneously provide teaching to nonpsychiatric colleagues. Restoring liaison activities has great value for consultation-liaison psychiatrists and for the institutions in which we work. For those of us who miss the liaison aspects of what we do, this model could restore such activities.

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