

**DEPRESSION AND PHYSICAL ILLNESS : A SOCIOLOGICAL INQUIRY**

---

**Dr. Manoj Kumar Tomar**

Department of Sociology

Govt. Girls College, Sawai Madhopur

---

**Introduction**

Physical illness and depression are common experience during the lifetime of many individuals. Attempts to understand the relationships between depression and physical illness bring forth all the controversies that persist regarding the nature of depressive affect, the etiological mechanisms of depression, the validity of psychiatric diagnosis, and the implications of tragic life events for the diagnosis and management of psychiatric disorders.

This co morbidity is of particular importance because many health professionals do not identify treat, or refer depressed medical patients for psychiatric assessment and intervention. Further mental health professionals accustomed to treating the physically well are often unnecessarily reluctant to accept in their clinical practices, patients with serious medical illnesses, which might be due to a justifiable worry regarding expertise and abilities requires, but is also due to some myths such as that most seriously ill medical patients are depressed, that psychiatric intervention in such patients is not required is hazardous or ineffective.

Depressive illness is strongly associated with physical disease. Up to a third of physically ill patients attending the hospital have depressed symptoms. In patient with physical illness, depression may.

- Be a coincidental association.
- Be a complication of physical illness.
- Cause or exacerbate somatic symptoms.

In spite of its enormous clinical and public health importance, depressive illness is often diagnosed and under treated, particularly when it coexists with physical illness.

**Assessment and Diagnosis**

That physician recognition of depression in the medically ill has been dismal has been pointed at by many studies based on self-report inventories as well as structured interview and

standardized diagnostic criteria. A series of inter related explanations have been proposed by various authors to explain why this is so.

### **Factors contributing to the under diagnosis of depression by physicians:**

#### **Physician-Related Factors:**

- Limitations in clinical experience and training.
- Concern about adverse social consequences of a psychiatric diagnosis.
- Reluctance to address emotional issues.
- Misattribution of somatic symptoms of depression to physical illness.
- "Expected and understandable reaction to illness"-Minimization.
- Ignorance about treatment potentials.
- Focus on particular organ systems with neglect of psychosocial factors.

#### **Structural Factors:**

- Time and/or financial restraints.
- Lack of privacy for interview.

#### **Patient Factors:**

- Somatization and diminished affective awareness.
- Fear of stigma of reporting emotional illness.
- Lack of knowledge about available assistance and/or treatment.

Some of the screening instruments which have been found to raise the recognition of depression by physicians are Beck Depression Inventory and its short form (BDI and BDI-SF), Hospital Anxiety and Depression Scale (HADS), Zung Self Depression Scale (SDS), Brief Carroll Depression Rating Scale (BCDRS), and centre for Epidemiological Studies Depression Scale (CES-D)

### **The Somatic Symptoms**

The current classificatory systems include a directive to "not include systems which are clearly due to a physical disorder". This proscription is intended to avoid attributing symptoms of physical illness to a depressive syndrome. The proposals to eliminate somatic symptoms for diagnosis of depression in medically ill patients have several disadvantages. First, findings from the validity studies of diagnostic systems don't necessarily apply to such modified criteria.

Third, elimination or replacement of somatic criteria would likely result in an under diagnosis of depression in the physically ill. Somatic complaints are the most common presentations of depression in certain cultures and in the primary care setting. Approximately one quarter of persons in psychiatric setting with major depression has presented initially with somatic symptoms. This proportion increases to one half for depressed patients who were referred from medical or surgical settings. Careful clinical judgment may allow certain somatic symptoms to be excluded in some cases (which are highly prevalent in that specific diagnosis) without radical changes to existing criteria (e.g., Loss of energy). Anorexia and weight loss in cancer and psychomotor retardation in Parkinson's disease. Whereas other somatic symptoms remain valid discriminators of major depression.

Equally problematic, particularly with patients who have frequent functional somatic symptoms or a past psychiatric history, is the tendency of the physicians to assume that unexplained somatic complaints are a manifestation of psychopathology. In such cases, coexisting or underlying organic disease may go undetected. Studies have shown that somatic complaints with major depression were not always a manifestation of depression, but at times were due to associated medical problems.

### **Depression of Adjustment Disorder**

The differential diagnosis for major depressive episode in the medical setting includes adjustment disorder with depressed mood. This refers to a maladaptive reaction to a recent and identifiable psychosocial stressor and should not amount to major depressive episode. The judgments regarding "maladaptiveness" may be difficult. Symptoms like suicidal ideation and vegetative symptoms may differentiate between the two.

### **Etiology and Pathogenesis**

The pathogenesis of depression in physical illness can be understood in terms of what came first (though many a times it might be difficult to ascertain the sequence).

### **When Depression Precedes Physical Illness**

The relationship may be coincidental when physical illness arises in a person with major depression. Alternatively, physical illness may arise as a direct complication of depressive symptoms (e.g., apathy and suicidal thoughts leading to self neglect, non-compliance with medical treatment, overt self-harm, or lack of self-care) or as a result of treatment for

depression (e.g., hepatic complication with tricyclic antidepressants). A number of authors have either documented or speculated upon association between depression and specific medical illnesses. For example, with coronary artery disease, depression has been found to be a risk factor of similar magnitude as cigarette smoking. A history of major depressive episode has also been associated with a greater likelihood of myocardial infarction in patients with pre-existing coronary artery disease. The association between depression and malignancy has not been well substantiated.

Alteration of immune status has been proposed as a mechanism by which depression may contribute to the development of physical illness. Most controlled studies have now documented impairment of immune function in drug-free patient with major depression, showing a reduction of mitogen induced lymphocyte stimulation with a significantly increased mitogen response after recovery from depression. A generalized reduction in the number of peripheral blood lymphocytes and a reduction in the number T cells and B cells have also been reported. There are several pathways by which depression might be associated with changes in immune parameters. Hypercortisolemia, which may be associated with changes in growth hormone, and luteinizing hormone secretion and in the hypothalamic-pituitary-thyroid axis, all of which may themselves be related to the alteration of immune parameters.

Although laboratory tests have documented that immune changes are associated with depression, it has been much more difficult to demonstrate that these changes are causally related to the occurrence of physical illness or dysfunction. There have been some reports that depression is associated with infection and allergic disorders but, even in these conditions, results are conflicting. With the possible exception of minor infections or allergies, there is little direct data to support the hypothesis that depression is associated with the onset of physical illness due to impaired immune function. In fact, it has been argued that the effect of psychological factors on the immune response is always marginal and inconsequential.

Depressive symptoms or a depressive disorder may be an early manifestation of some physical illness (rather than a risk factor). Such as Parkinson's disease and malignancy (especially pancreatic and lung carcinoma). The mechanism by which depression may occur in this context will be discussed in the next section. When depression occurs before the somatic presentation of a physical illness, there is a risk that medical diagnosis will be delayed or even missed e.g., in Normal Pressure hydrocephalus, Pancreatic carcinoma and other diseases.

### **When Physical Illness Precedes Depression**

The mechanisms by which depression occurs after the onset of a physical illness can be divided into psychological, social and biological for the sake of convenience though almost always there is an amalgamation of the three.

## **Psychological Factors**

### **The Personal Meaning of Illness**

A central factor in the psychological response to illness may be the personal meaning of the illness for that individual. The personal meaning of the illness is influenced by the psychodynamic equilibrium, self-structure, personality and cognitive disposition of the individual affected. Personal meaning contributes to the adaptive mechanisms and coping strategies that are brought into play. The distress associated with a chronic illness depends on many factors such as the life-stage of the individual, previous life experience, self-structure and psychodynamic equilibrium of the individual.

### **Cognitive Theories**

These theories postulate that negative cognitions develop as a result of earlier life experience and become activated in face of stress. For example, medical patients often misremember and distort information given to them by their physicians, perhaps due to a block in the processing of information that is perceived as threatening, some of these cognitive factors are:-

#### **(A) Attribution Style**

Attribution or explanatory style refers to the explanations that individuals habitually assign to uncontrollable negative events that befall them. It has been postulated that people who attribute unpleasant events to causes which are stable (e.g., "it will always be like this"), global (e.g., "it will ruin everything"), or internal (e.g., "it's me") will have more depression and poor and physical health than persons who explain such events with causes which are unstable (e.g., "it was a fluke"), specific (e.g., "it won't affect my life"), or external (e.g., "it was the weather"). For medical patients, an internal locus of control may help to preserve a sense of mastery but at least theoretically, may also increase self-blame when adverse events occur.

#### **(B) Dysfunctional Attitudes**

Medical patients who have rigid expectations about their own abilities and performance that cannot be modified in spite of the restrictions of the illness may be more vulnerable to depression. For example, persons who develop renal failure and must begin dialysis will necessarily find that their appearance and lifestyle are altered considerably. If the same standards of attractiveness and performance are expected, disappointment, frustration, and depression may be the consequence.

### **(C) Cognitive Distortions**

Such errors include catastrophizing, overgeneralization, personalization, and selective attention. They are thought to lead to dysphoric affect and maladaptive behaviors in the face of negative life events such as medical illness.

## **Coping with the Illness**

### **Cognitive Appraisal**

Although the appraisal coping process in medical patients has been insufficiently studied, it has been speculated that there is a clear advantage to a positive appraisal of one's physical illness. This positive appraisal may be different than denial of the personal relevance of an illness, in which treatment may actually be neglected or refused. Optimistic appraisal and coping behaviors, which are clearly based on an acknowledgement of the illness, may protect from depression and preserve health. For example, a positive appraisal of the benefits of treatment may lead to excellent compliance.

### **Social Factors**

Physical illness commonly increases a patient's need for emotional support (reassurance, empathic understanding, acceptance, and affection) as well as practical assistance (for e.g., renal patients on home dialysis may need an assistant to help them start and finish their dialysis). Unfortunately, although illness heightens the need for support, it may also interfere with the individual's capacity to acquire and maintain it due to stigma or uncomfortable fears in some illnesses (such as AIDS).

The most commonly used structural measure of social support in the medically ill is marital status, and studies have reported either a decreased rate of depression in marital status. The quality of the marital relationship is likely an overriding factor when assessing the impact of marital status on depression. The benefits of marriage may be restricted to contented

marriages; unhappily married individuals may actually be worse off than the unmarried in terms of emotional well being. It has been reported that the quality of marital relationship is a significant predictor of depression three month postoperatively in surgical patients.

Functional measures of social support tend to reflect the perceptions of the recipient. Depressive symptoms in the medically ill are more clearly related to the functional than to the structural characteristics of social support. This has been illustrated by various studies on women with breast cancer. It has been found that one month after surgery in such patients, depression was associated with dissatisfaction with support from surgeons, and three months after surgery, with dissatisfaction with support from both surgeons and family members. These findings suggest that not only is the perceived adequacy of support from others an important factor in the development of depression, but that the desired provider of support may change with the treatment process. The relationship between the quality of social support and severity of depression has been consistent with other types of cancer as well as with other illness such as end-stage renal disease. Several other aspects of social support have been found to be more or less helpful. It has been noted that it is illness when they wish to do so. But, in certain circumstances, patients prefer to avoid talking about their illnesses altogether, and perhaps even to be left alone. Thus, caregivers should take cues from their patients in this regard. Also, minimizing comments like "It could be worse" and unrealistic optimism like "It will get better" may be experienced by patients as dismissive and invalidating. Also, advice and suggestions from others who are unfamiliar with the illness can be both annoying and confusing.

### **Biological Factors**

Although our understanding of the biological underpinnings of depression has expanded rapidly during the past, two decades, we still lack a comprehensive biological and psychological factor in the etiology of depression. In the absence of such a theory, biological mechanisms to explain depression associated with any given disease are most compelling when psychological explanations can be ruled out. For example, when symptoms of depression begin prior to other manifestations of the illness (e.g., depression preceding the onset of pancreatic carcinoma) or when depression is more prevalent in one illness than in others with a similar prognosis, severity, or level of disability. But most of the recent studies have supported.

### **Biological Factors in Some Specific Conditions Cancer**

Proposed etiologic mechanisms for depression in this context are cancer related immunologic interference with serotonergic pathways, chemotherapeutic agent, and radiotherapy nutritional impairment, moplatic cachexia, metabolic (e.g., hypocalcaemia) and endocrine (e.g., hypercholesterolemia) disturbances and secretion of ACTH like material.

In cancer of the pancreas, it has been suggested that the tumor might metabolize tryptophan and thereby compete peripherally for this serotonin precursor, diminishing the supply available to the central nervous system. Also, it has been proposed that a protein released by the cancer cells could induce antibodies which. Based on cross-reactivity with central nervous system tissue, could bind to serotonin receptors and thus reduce its synaptic availability.

### **Post Stroke Depression**

In earlier studies, left anterior hemispheric lesions were often associated with major or minor depression and the closer a left. Sided lesion was to the frontal pole, the greater was the likelihood of depression but recent studied found either an association with right sided lesions or no relation with lesion location. It has been suggested that a stroke may cause depletion of biogenic amines, secondary to disruption of ascending biogenic pathways causing depression.

### **Parkinson's disease (PD)**

Dopaminergic depletion in the mesocorticolimbic dopaminergic system may have importance in the production of psychological and/or behavioral symptoms by means of limbic connections. In addition, disruption of the ascending noradrenergic system as it arises from the locus ceruleans may occur in PD. Levels of serotonin in the cerebrospinal fluid were found to be significantly lower in PD patients with major depression compared to ethylic PD patients. Further, low serotonin was associated with prominent psychomotor retardation and loss of self-esteem.

### **Multiple Sclerosis**

Association between depression and multiple sclerosis may be due to demyelinating lesions that interrupt biogenic amine pathway. Some studies found predominant temporal lobe involvement based on magnetic resonance testing, and other studies have predominant temporal lobe involvement based on magnetic resonance testing, and other studies have implicated per ventricular pathology but recent literature does not identify any specific pattern of neurological involvement as being consistently associated with depressive symptoms or

disorders. Illness exacerbations and corticosteroid exposures have also been associated with depression. Case reports have also speculated on Baclofen, benzodiazepines and interferon's as the cause of depression.

### **HIV Infection**

It has been suggested that HIV itself causes depression, that HIV associated neurocognitive change (now referred to as Minor Cognitive Motor Disorder and HIV Associated Dementia) may be a cause of depression, or that HIV associated medications may cause mood changes. There are a few case reports which address these issues but there is little evidence to support these hypotheses. Risk factors for Major Depression in HIV positive cases include previous depression or family history of depression, alcohol other substance use, loss of social supports and multiple losses.

### **Epilepsy**

Links with laterality of focus have not been consistent between studies though there does seem to be a more specific association with temporal lobe epilepsy and a greater weight of evidence to suggest a left sided association (though some of the recent studies have found a right sided association).

### **Course and Outcome**

- 1- Depression has been observed to persist or recur in patients with continuing illness and to recede with remission of medical illness.
- 2- The persistence of major depression in medical out patients was predicted by the number of physical diagnosis at initial assessment.
- 3- Secondary depressives were less likely to receive adequate treatment than primary depressives.
- 4- Physical illness may delay recovery from depression and psychological disorders.

### **Treatment**

In the medical setting treatment selection often requires the consideration of diverse modalities. For the purpose of clarity, we have divided into separate section our discussion of biological and psychological treatments. It has become evident that combining psychotherapeutic and pharmacologic treatments often results in greater benefits than with either approach alone. This may be particularly relevant in the physically ill in whom major

depression is often preceded by an associated with relative inability to cope with the multiple tasks and stresses associated with the condition.

### **Psychotherapy**

Psychotherapy may be indicated for those who are less severely depressed or who are at risk of becoming depressed. In this regard repression has been viewed as a form of adaptive failure that may be most likely to occur in those who are unable to adapt flexibly to the complex demands and stresses of physical illness, who are less able to tolerate, regulate, and integrate depressive affect, and/or those who are predisposed for genetic or other reasons to become depressed.

The most important psychotherapeutic interventions may be empathic listening and the formation of a therapeutic relationship. Psychodynamic and cognitive therapy principles are applicable with special attention to the psychological factors mentioned in this population. The selection of one or the other of these treatment approaches can be determined both by the experience and expertise of the therapist and by the acceptability and suitability of the patients. In many cases, therapists will employ, to a greater or lesser extent, techniques from both modalities. Psycho educational, self-help and group treatment approaches to depression in the medically ill have also been found to be effective.

### **Pharmacotherapy**

In the medically ill patients, the following features, wither alone or in combination should suggest to the clinician that a depressive episode may be present and that specific antidepressant treatment may be indicated:

1. Depressive symptoms those are severe, persistent, or unresponsive to simple psychosocial interventions.
2. Depressive symptoms that interfere with medical interventions or otherwise contribute to a worsening of the medical illness.
3. Depressed mood loss of interest or demoralization that is not alleviated by improvement of the medical state.
4. Depressive symptoms not temporally limited to a period of normal adjustment following a meaningful change in the medical state.

A trial of antidepressant medication may serve as a diagnostic aid when it is difficult to distinguish symptoms of a depressive syndrome from those due to the underlying medical condition. If that patient can tolerate the side effects of the medication, a trial of antidepressants may be justified in such cases.

Historically, preexisting skeletal, cardiovascular, or central nervous system diseases were considered to be contraindications to the use of ECT. These conditions, including intra-cranial space occupying lesions are no longer regarded as absolute contraindications. It has been suggested that there is a higher risk of cardiovascular complications from ECT in those with angina, past myocardial infarction, congestive heart failure, arrhythmia, rheumatic heart disease, hypertension, or abnormal baseline electrocardiograms. Hypertension, or abnormal baseline electrocardiograms thought ECT can be given with careful pre and post evaluation and precautions. Also, changes in the anesthetic regimen will be required for patients with succinylcholine sensitivity, malignant hyperthermia or porphyria. ECT may be used in patients with cardiac pacemakers (with close involvement of a cardiologist). ECT has been used successfully to treat depression in Parkinson's disease, multiple sclerosis and other illness.

### **Risk of Lack of Diagnosis and Treatment**

1. The affective illness leads to amplification of somatic symptoms of the medical illness, may lead the physician to suspect worsening of the physical illness, resulting in potentially over testing and medication changes.
2. Major depression may decrease the patients' motivation to adequately care for their chronic illness and decrease drug compliance.
3. Major depression may also have a maladaptive direct physiological effect on the patients' disease.
4. Major depression co morbid with physical illness resulted in significant increase in length of hospital stay, and to make greater demands on medical, social and psychiatric services.

### **Limitations of the Studies**

1. Majority were cross sectional studies. Though these provide association between major depressive disorder and specific physical illness, they fail to provide evidence of causal links in the longitudinal course and natural history of coexisting mental and physical morbidity. They may even be underestimating the proportion of persons who become depressed with increase in duration of illness.

2. The variability of the study setting in the case series available (in-patients, out-patients, community) minimizes the possibility of a generalization. The setting can be a decisive factor in rating prevalence.
3. Assessment based on self reports may be over diagnosing medical illness due to tendency of depressives to over report or to attribute their symptoms to a circumscribed physical diagnosis.
4. Structured clinical interviews or rating scales may not have the same validity in patients with medical illness, say coronary artery disease, as in the general population.

### **Indian Scenario**

Various Indian investigators have reported the prevalence of depression in medical out-patients from 4.3% to 41.9%.

Varma found depression to be a common manifestation associated with Tuberculosis. Purohit and colleagues too supported the same and related it to duration and severity of illness. Mathai and colleagues added that psychiatric morbidity in the tuberculosis patients was related to the duration of illness.

Jainer and colleagues reported depressive symptoms in diabetics and that their severity was significantly higher in Insulin dependent as compared to non-insulin dependent diabetics.

Sagar and colleagues reported the elderly depressive had a significantly higher prevalence of undiagnosed physical illness as well as multiple physical illnesses as compared to elderly non-depressives.

Others workers too have reported high prevalence of depression among leprosy, patients with chronic non specific abdominal pain and those with chronic intractable pain.

### **Implication and Future Directions**

1. Increased need of recognition by primary care physicians of the importance of obtaining a consultation for psychiatric treatment.
2. Increased need of awareness, among psychiatrists of the necessity of accurate diagnosis of physical illness.
3. Consultation – Liaison psychiatrists have a particular role in treatment of patients who ask for euthanasia as successful treatment of depression has shown to increase desire for life sustaining interventions.

4. Future research should focus on prospective studies of the natural history of mood disorder in medical patients using validated structured diagnostic interviews and controlling for functional disability illness duration.
5. Hypothesis generation for research investigation a etiological and path physiological factors common to both depression and specific physical illness.
6. Hypothesis generation for the genetic investigation of the familial so-transmission of major depressive disorder and specific physical illness.
7. Need for new scales which are specific to application in depressed medical patients. Some are already available.
8. Identification of certain so called biological markers associated with depression which may help to identify prodormal or subsyndromal depressive symptoms is specific physical illness.

## Conclusion

Depression and physical illness frequently coexist as is suggested by the extensive literature on prevalence of his co morbidity in out-patients, in-patients and specific illnesses. Physician recognition of depression in physically ill is dismal because of many reasons, somatic symptoms being a major confounding factor and adjustment disorder being a close differential diagnosis. Psychological social and biological factors in etiopathogenesis and management were discussed with special relevance to precautions in using drugs and ECT. It is important for the clinician to be aware of the relation between the two, for proper diagnosis and treatment.

## References

- Bukbery, J., penman, D. & Holland, J.C. (1984). Depression in hospitalized cancer patients. *Psychosomatic medicine*, 46, 1999-212.
- Patten, S.B., Metz, L.M. (1997). Depression in multiple sclerosis. *Psychotherapy and psychosomatic*, 66, 286-296.
- Provinciali, L., Coccia, m. (2002). Post stroke and vascular depression: a critical review. *Neurological science*, 22, 417-428.
- Musselman, D.L., Evans, D.L., Nemeroff, C.B. (1998). The relationship of depression to cardiovascular disease. *Archives of renewal psychiatry*, 55, 580-592.
- Hardman, a., Maguire, P. & Crowther, D. (1998). The recognition of psychiatric morbidity on a medical oncology ward. *Journal of psychosomatic research*, 33, 235-239.

- Schurman, R.A., Kramer, P.D. & Mitchell, J.B. (1985). The hidden mental health network; treatment of mental illness by non psychiatrist physicians. *Archives of general psychiatry*, 42, 89-84.
- Kessler, L.G., Cleary, P.D. & Burke Jr., J.D. (1985). Psychiatric disorders in primary care: results of a follow-up study. *Archives of general psychiatry*, 42, 583-587.
- Goldbrg, D. (1985). Identifying psychiatric illness among general medical patients. *British medical journal*, 291, 161-162.
- Schulberg, H.C., Saul, M., McClelland, m., Ganguli, M., Christy, W. & Frank, R. (1985). Assessing depression in primary medical and psychiatric practices. *Archives of General Psychiatry*, 42, 1164-1170.
- Razavi, D., Delvaux, N., Farvacquez, C. & Robaye, E. (1990). Screening for adjustment disorders and major depressive disorders in cancer inpatients. *British journal of psychiatry*, 156, 79-83.
- Koenig, H.G., Meador, K.G., Cohen, H.J. & Blazer, D.G. (1998). Self rated depression scales and screening for major depression in the older hospitalized patient with medical illness. *Journal of the American geriatrics society*, 36, 699-706.
- Craven, J.L., Rodin, G.M. & Littlefield, C.H. (1988). The beck depression inventory as a screening device for major depression in renal dialysis patents. *International journal of psychiatry in medicine*, 18, 373-382.
- Escobar, J.L., Rubio-Stipec, M., Canino, G. & Karno, M. (1989). Somatic Symptoms index (SSI): a new and abridged summarization construct: prevalence and epidemiological correlates in two large community sample. *Journal of nervous and mental disease*, 177, 140-146.
- Williamson, P.S. & Yates, W.R. (1989). The initial presentation of depression in family practice and psychiatric out patients. *General hospital psychiatry*, 11, 88-193.
- Rodin, G., Craven, J., Littlefield, C. (1991). Assessment and diagnosis (I). In *depression in the medically ill: an integrated approach* Brunner/Mazel. NY, PP 39.
- Rosen, D.H., Gregory, R.T., Pollock, D. & Schiffmann, A. (1987). Depression in patients referred for psychiatric consultation: A need for a new diagnosis. *General Hospital Psychiatry*, 9,391-397.
- Dalton, S.O., Mellemkjaer, L., Olsen, J.H., et al. (2002). Depression and cancer risk: A register based study of patients hospitalized with affective disorders. Denmark, 1969-1993. *American Journal of Epidemiology*, 155, 1088-95.

- Calabrese, J.R., Skwerer, R.G., Barna, B. et al. (1986). Depression immunozompetence and prostaglandins of the E series. *Psychiatry Research*, 17, 41-47.
- Scheifer, S.J., Keller, S.E., Siris, S.G. et al. (1985). Depression and immunity: Lymphocyte function in ambulatory depressed patients, hospitalized schizophrenic patients and patients hospitalized for herniorrhaphy. *Archives of General Psychiatry*, 42, 129-133.