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INVOLUTIONAL DEPRESSION

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Table of Contents

INVOLUTIONAL DEPRESSION

The Classical Picture

The Controversy

Early History

Premorbid Personality

Relation of the Menopause and Climacterium to Involutional Depression

Psychopharmacology

Genetics

Psychological Aspects of Depressions of the Involutional Years

Symptomatology

Conclusion

Bibliography

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Saul H. Rosenthal

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Involutional melancholia has developed an anomalous position in psychiatry. It is an illness that is described in almost all of the textbooks and is maintained in the classification systems; however, the diagnosis is rarely used. Involutional melancholia apparently was encountered fairly frequently in the past, and was described as a quite clear-cut psychiatric illness. Today, however, one rarely encounters a "classical case" of the full-blown involutional melancholia syndrome.

Partially because of this, involutional melancholia has become a questionable illness. Many writers today feel that it is undistinguishable from other depressive syndromes. The APA *Diagnostic and Statistical Manual of Mental Disorders* (DSM-II) reflects this ambivalence. It defines involutional melancholia as a disorder occurring in the involutional period, which is characterized by worry, anxiety, agitation, and severe insomnia, with guilt

and somatic preoccupation. Involutional melancholia is included with manicdepressive illness under the category of major affective disorders as a psychosis not directly related to precipitating life experience. DSM-II goes on to note that opinion is divided as to whether involutional melancholia can be distinguished from other depressions, and advises that one not use this diagnosis, unless all other affective disorders have been ruled out.

In DSM-I, involutional melancholia and involutional paranoid disorders were combined together under the diagnosis of "involutional psychotic reaction." The current splitting of the two categories probably reflects the impression that involutional melancholia may be etiologically related to other depressive disorders, while the paranoid reactions of the involutional years may be more clearly related to schizophrenic disorders.

The Classical Picture

Although there is a good deal of mixed opinion as to whether involutional melancholia does shade off into other depressions, or whether it is a separate entity, there is remarkably little controversy about the description of the classical picture. That is to say, it is a well-defined syndrome, and most psychiatrists have the same picture in mind when they use the term "involutional melancholia," whether they believe in it or not. I will summarize the textbook picture here to clarify what is being discussed: Involutional melancholia is a depressive episode of major proportion occurring *for the first time* in the involutional age without a prior history of manic-depressive illness. The involutional age generally refers to ages 40-55 for women and 50-65 for men. Involutional depressions are more common in women, as are most depressive illnesses.

The *premorbid personality* is often described as rigid, overconscientious, and restricted. Superego domination is stressed, with life-long repression of sexual and aggressive drives, in an anal-erotic personality utilizing primarily obsessive-compulsive defenses. The illness is seen as decompensation of the obsessional defensive life pattern.

The *genetic background* has been in question, with a few early studies indicating a relationship to schizophrenia. Modern studies tend to consider involutional melancholia in the context of a late onset unipolar depression, and find some genetic relationship to other depressive disorders.

Although involutional melancholia in women tends to occur approximately at the time of the menopause, it is now felt that the psychological impact of the menopause has more effect on symptom formation than does its direct physiologic action. It is also felt that aging per se, rather than the specific changes around the Climacterium, is probably a major factor in determining a particular pattern of symptoms.

The *onset* is gradual, with the slow buildup of hypochondriasis, pessimism, and irritability finally flowering into full-blown depressive syndrome. The most prominent features are motor agitation and restlessness, a prevailing effect of anxiety and apprehension, an exaggerated hypochondriasis (sometimes with bizarre delusions), and occasional paranoid ideation which infrequently dominates. These distinguishing symptoms may be thought of as superimposed on a basic depressive substrate with insomnia, anorexia, and weight loss, and feelings of guilt and worthlessness. The depressed affect is described by some as shallow, as compared to that seen in other depressive patients. Retardation is often described as absent or masked by agitation.

The untreated *course* was felt to be quite long and, in the days before electroconvulsive therapy, was estimated at one to five years for the 30-60 percent of patients who recovered spontaneously. For example, Huston and Locker reported a retrospective study in 1948, following up patients hospitalized between 1930 and 1939 at Iowa Psychopathic Hospital. They found that only 46 percent of the patients recovered spontaneously and for those recovered patients the average course of the illness was forty-nine months with a median duration of thirty-one months. Eighteen percent of the patients did not recover and, interestingly, 36 percent died. This included 13 percent who suicided (usually within two years of the onset of the illness); 10 percent who died directly due to the illness, from exhaustion and

malnutrition; and 13 percent who died from intercurrent medical illnesses, of whom half were perhaps indirectly due to the depression. Treatment with electroconvulsive therapy changed this picture markedly; involutional agitated depressions are noted to have an excellent response to ECT' and the duration of the illness is shortened to three to six weeks in many cases. For example, Huston's group reported that 84 percent of his patients with melancholia treated with ECT between 1941 and 1943 had complete recovery or pronounced improvement, which was maintained for at least thirty-six months of follow-up. The median time in the hospital fell from seven months untreated, to one-and-a-half months with ECT. Three-fourths of those patients who failed to respond, or who relapsed, responded to a second series.

The Controversy

Some writers feel that involutional melancholia can be distinguished from other depressions on multiple grounds. They usually make their distinction between involutional melancholia and manic depressive illness. The criteria include: a history lacking previous episodes of depression; a rigid, obsessive pre-morbid personality, rather than a cyclothymic one; a gradual rather than abrupt onset; a clinical picture dominated by agitation and hypochondriasis, rather than by sadness and retardation; the absence of manic symptoms; and a poor prognosis without treatment with a longer course and fewer recoveries.

The problem is that this is a comparison against the classical manicdepressive picture. It is a vestige of the psychiatric era when it was assumed that all depressed patients fit into either one or the other category. The epidemiological picture has changed tremendously, and with changing attitudes towards psychiatry and psychiatric hospitalization, both involutional melancholia and manic-depressive illness have been submerged in a sea of patients with milder neurotic depressions or depressive reactions.

A second problem is that the classic contrasts do not take into account the vast number of patients with intermediate or mixed pictures. Involutional melancholia seems to shade off on a continuum of mixed clinical pictures into other depressive conditions. We are unfortunate in psychiatry in that our diagnoses are, for the most part, made on the basis of clinical picture and clinical course alone. We do not have the reassuring laboratory tests that are available in medicine and provide firm end points by which one can say that a patient "has" one illness or another. Diagnoses made on clinical picture alone can be quite frustrating and the lack of firm end points has caused some writers to essentially abandon the struggle and subsume all depressions under a unitary category of "depression" or "affective disorders," and one frequently runs across studies that simply refer to populations of "depressed patients."

Among those who take either a unitary point of view or a view including involutional melancholia with other depressions, Lewis,' in an influential series of papers reviewing the case histories of a large number of psychiatric patients, felt that involutional depression should be included in the general category of affective disorders. He pointed out that the same symptoms may be seen at an earlier age and that many types of premorbid personality may be found. Roth asserted that "The concept of a specific involutional pattern of endogenous depression ... is no longer tenable." Stenback, after reviewing the syndrome, found that there is no characteristic ideology, syndrome, or course for involutional depression. More recently, Beck reviewed the evidence in his monograph on depression and concluded, "... there is no more justification for allocating a special diagnostic label to depressions in the involutional period, than there is for setting up other age specific categories...." Similarly, Mendels sees little rational basis for using a separate diagnostic category. He feels that involutional melancholia is probably a variety of depression whose clinical presentation has been affected by age and life situations.

Further towards a middle ground, Lehmann pointed out that while there is some supporting evidence for involutional melancholia as independent entity, it is not direct or definitive. Redlich and Friedman take the view that without any specific knowledge of the etiology, diagnostic disputes are unprofitable; they conclude that "at present, there is no good nosological or etiological reason to recognize involutional disorders as

specific entities." This probably represents the informal opinion of a great many present-day psychiatrists.

Other textbooks tend to be more conservative and still describe involutional melancholia as a separate entity to more or less extent. Ford, writing in Freedman and Kaplan's textbook, acknowledges the controversy but considers and describes involutional psychotic reaction as a clear-cut separate disorder. Slater and Roth, in Mayer-Gross' textbook, include involutional melancholia as a subheading in a chapter primarily devoted to manic-depressive illness. They feel that depressions in this age group may be related to functional or organic changes, but exactly what endocrine or metabolical alterations are responsible are currently unknown. They feel that some of the involutional depressive patients are manic-depressives, but that not all are, as there seems to be a different heredity, personality, prognosis, and response to treatment. They feel that the differences in symptoms are only partly attributable to influences of age.

Other texts maintain that involutional melancholia is clearly a distinct entity, and that it differs from other depressions, specifically from manicdepressive illness, in many ways. Kolb, writing in the new edition of Noyes' textbook, asserts, "In spite of the feature of depression common to both manic-depressive and involutional reactions, there are such special physiological and psychological factors in the latter, that it is no longer

considered to be a modified manic-depressive reaction occurring at a particular physiological epoch". Batchelor, in Henderson and Gillespie's textbook, takes basically the same point of view as does English and Finch's textbook.

The problem is thus complicated by a phenomenon whereby textbooks pass on clinical descriptions as stereotypes without validation at the same time when most clinicians and clinical writers do not believe that the syndromes have any validity. An additional problem is that clinical description in psychiatry, and involutional melancholia as a syndrome, have both fallen into relative disrepute in the United States, and this has discouraged further re-evaluation. It is complicated by the fact that attention in psychiatry in the past twenty years has shifted markedly away from older psychotic patients and toward young, verbal psychotherapy candidates on the one hand, and community and social issues on the other. These may be quite beneficial changes for psychiatry, but have contributed to the lack of investigational interest in involutional depressive disorders.

Early History

Kraepelin, in the fifth edition of his textbook, *Psychiatrie* (1896), divided the functional psychosis into three major groups: dementia praecox, manicdepressive psychosis, and involution psychoses, with the last including

melancholia. Kraepelin indicated that:

Melancholia is restricted to certain conditions of mental depression occurring during the period of involution. It includes all of the morbidly anxious states not represented in other forms of insanity, and is characterized by uniform despondency with fear, various delusions of selfaccusation, of persecution, and of a hypochondriacal nature, with moderate clouding of consciousness, leading in the greater number of cases, after a prolonged course, to moderate mental deterioration.

It was distinguished from manic-depressive illness by being an acquired condition in which external influences played an important etiological role, while manic-depressive illness was considered to be constitutionally determined.

Kraepelin included little discussion of premorbid personality, or what we would refer to as "psychodynamics." He noted that the condition apparently had some relation to the Climacterium, but this was mentioned only in passing. Therapy was supportive, with emphasis on bed rest, nutrition, isolation from the family, and prevention of suicide.

As with many Kraepelinian syndromes, prognosis was an important part of the diagnosis. The poor prognosis and prolonged course were important diagnostic criteria. If the patient recovered, the diagnosis became doubtful and the patient might be considered to have been manic-depressive all along. Dreyfus, a student of Kraepelin, took up this issue and in 1907 published an extensive follow-up of eighty-five of Kraepelin's cases diagnosed as melancholia at the Heidelberg Clinic since 1892. Dreyfus found a history of previous manic-depressive psychosis in 54 percent and a high eventual recovery rate of 66 percent (although sometimes after a course as long as ten years). He thus concluded, since the patients recovered and had had previous episodes of illness, that they were late manifestations of manic-depressive disease and that involutional melancholia was not a distinct entity.

Rather surprisingly, Kraepelin came to agree with Dreyfus and between his seventh and eighth editions he changed his classification to include involutional depressions and involutional anxiety states in the category of manic-depressive psychosis. This change carried a good deal of weight in German psychiatry, but was not generally accepted in English-speaking countries. Most texts and classification systems, as noted above, still describe involutional melancholia as a separate illness some sixty years later.

Dreyfus' work was soon attacked by Kirby, who felt that Dreyfus' conclusion that previous manic-depressive episodes had been present in these patients was based on very meager data in many cases. Many more scathing attacks followed, such as that by Hoch and MacCurdy, who commented that "Dreyfus' zeal outran his judgment." They stated that while looking for evidence of manic-depressive psychosis, "He ferreted out a history of depressions so mild as to seem to be neurosis or merely more or less normal mood swings . . . they should not be called 'psychoses' . . . otherwise, nearly the whole world is, or has been, insane."

As during these years the term "melancholia" was used interchangeably with "involutional melancholia," it was probably patients in this group that Freud described in 1917 in "Mourning and Melancholia." Freud made initial investigations into the psychodynamics of melancholia and emphasized unconscious processes.

The question of the relationship of prognosis to diagnosis was approached in a different way in the discussion of involutional melancholia by Hoch and McCurdy in 1922. While Kraepelin had simply included deterioration as one of the criteria for the diagnosis of melancholia, these authors attempted to discover what specific clinical features could be used to predict whether or not the patient would deteriorate. They used the Kraepelinian reasoning of prognosis as an aid in diagnosis, but with an empirical twist. They retrospectively divided their involutional-age patients into recovered cases (who they felt were probably manic-depressives) and the unrecovered (who were felt to be melancholics), and then they tried to find the clinical characteristics that had distinguished them. Poor prognostic signs (or signs of melancholia) were found to include severe hypochondriasis with delusions often related to the alimentary canal, and a restriction of interests and affect. The authors found that if no improvement occurred in

four years, the patients would probably remain chronic.

Bleuler's textbook in 1924 showed the confusion that existed even then about the diagnosis of melancholia. Bleuler obviously did not entirely agree with Kraepelin's decision to include melancholia under the diagnosis of manic-depressive disease: "It does not seem reasonable to bunch all the apparently independent depressions of the period of involution and class them with manic-depressive insanity." He defers, however, to Kraepelin and states that the original nosologic independence can no longer be sustained. He seems rather ambivalent, as he continues by saying, "But the reasons for the separation were, nevertheless, weighty." He then gives the distinguishing characteristics of melancholia as a more protracted course, with a slow onset and recession, retardation concealed by restlessness, frequent agitation, and usually single attacks. It is interesting that deterioration and chronicity, which were two of the cardinal points in Kraepelin's original formulation, were no longer considered criteria. Predisposing personality has not yet been mentioned.

In the late 1920s and early 1930s, a major issue of debate in the study of depression was the proposed distinction between reactive and autonomous or endogenous depressions. In 1929, Gillespie made an important distinction between "reactive" and "autonomous" depressions. He included involutional depressions as a subgroup of autonomous depression in which

hypochondriacal preoccupations were prominent and in which there was less depth of affect and a poor prognosis. It is of significance that he described the personalities of his four subjects as timid, quiet, unambitious, worrying, hypochondriacal, and over-conscientious.

In their textbook of psychiatry, in 1932, Henderson and Gillespie described involutional melancholia as a separate entity, as did other texts of the time, such as Noyes and Strecker and Ebaugh. Henderson and Gillespie's clinical description became a classic and was often quoted: "Depression without retardation, anxiety, a feeling of unreality, and hypochondriacal delusions."

As noted above, Lewis reviewed the literature on melancholia in an influential series of papers commencing in 1934. After extensively examining a large number of patients, he concluded that depressive syndromes could not be validly distinguished on clinical grounds, but rather formed a continuum. He pointed out that symptoms of agitation and hypochondriasis were found in younger age groups, as well as in involutional age patients.

Premorbid Personality

In the early writings, there was very little discussion of premorbid personality specifically related to involutional melancholia. Freud did not emphasize it but commented that a good, capable, conscientious woman was more likely to develop melancholia than one who is actually worthless, and he emphasized narcissistic object choice as a predisposing factor. Abraham emphasized obsessive-compulsive personalities before and between depressive attacks, but he was referring specifically to manic-depressive patients. Gillespie, as noted above, described the worrying, overconscientious personality, but on a basis of very few subjects.

In the 1930s, however, interest in premorbid personality was growing throughout psychiatry. This interest came from many sources, ranging from the analytic writings of Abraham and others to the work by Kretchmer attempting to relate character type and physique to psychiatric diagnostic groups.

Titley was the first to make an extensive description of premorbid character in "involutional depression" (which was at that time replacing "involutional melancholia" as the name given to the syndrome). He compared ten involutional depressive (five men and five women) with ten manicdepressives and ten normals on twenty-two character traits, of which fifteen were found to discriminate between the groups. The character profile of involutional depressives was found to be markedly different from that of either the manic-depressives or the normals. It included rigid adherence to a high ethical code, a narrow range of interests, over-meticulousness and overconscientiousness, stubbornness, anxiety, and poor sexual adjustment. Titley

noted that Noyes had given the same description, based on clinical impressions, three years before in his textbook, and that the same character type was described by analytic authors as the anal-erotic personality.

There were some obvious flaws in Titley's study. The most glaring was that the average age of his involutional patients was fifty-six, while the average age of his manic-depressive patients was twenty-nine. It is hard to imagine that this did not account for some of the differences between these groups.

Palmer and Sherman, compared fifty melancholics and fifty manicdepressives and confirmed the findings of a rigid premorbid character in melancholia. They emphasized obsessional traits, strong repression, sadomasochism, introverted personality, sexual maladjustment, and (citing the psychoanalytic contributions of Freud, Rado, and Abraham) they saw the obsessional character as a reaction formation against repressed anal tendencies with regression to oral-sadism and narcissism. They felt that involutional melancholia could be clearly differentiated from manicdepressive psychosis by personality, history of previous attacks, course, symptoms, and prognosis. They also emphasized the high incidence of paranoid trends in involutional melancholia.

Palmer and Sherman presented no data in any kind of tabular form to

justify their conclusions, did no organized rating, and did no tests of any kind of statistical significance. It is also possible that the patients' self-perception of their previous personality may have been distorted by their illnesses.

The premorbid personality described above was printed in the textbooks of the 1940s with references back to these two studies. Since then, it has been widely accepted and is referred to in almost all psychiatric texts that discuss involutional depression. Although it is now usually presented without citing the above studies, it is still based on these two small studies constructed without blind techniques, with impressionistic ratings, and with little confirmation. One is hard-pressed to find any recent studies that confirm these findings with more sophisticated statistical techniques.

Relation of the Menopause and Climacterium to Involutional Depression

A distinction is made between the menopause, which refers to the cessation of menses, and the Climacterium, which refers to the adaptational period lasting a number of years during which there are physiological, psychological, and social role changes. Thus, the distinction between menopause and Climacterium is roughly equivalent to the distinction between menarche and adolescence.

In approximately 25 percent of women, following the menopause, decreasing estrogen deduction causes widespread atrophic changes. The

average age of onset of this physiologic menopause has gradually increased and it is currently in the late forties. Vasomotor, somatic, depressive, and anxiety symptoms often occur concomitantly. It is felt that the speed of the decrease in estrogen levels is responsible in part for the severity of the symptoms. Approximately 25 to 30 percent of women have symptoms severe enough to have to go to a physician. The relationship between menopause and more severe involutional depressions has long been a question of controversy. The discussion is centered on conceptions of estrogen deficiency as the primary etiology of involutional depressions and on estrogen as a specific treatment for these depressions.

In the 1920s, therapeutic enthusiasts reported excellent treatment results with whole ovary and corpus luteum extracts, which in later years were shown to have been inert. In 1930, however, estrogens became available and the next ten years produced a new enthusiasm for the treatment of involutional depressions with estrogens. The initial reports were quite favorable and led Werner et al. to conclude that "So-called involutional melancholia is only an extreme manifestation of the symptomatology of the menopause," and that estrogen was a specific treatment.

As so often happens, these glowing reports were followed by a contrasting series of studies reporting little or no improvement of involutional depressed patients when treated with estrogens. Ripley et al., for

example, found the only improvement to be the relief of vasomotor symptoms and an increased feeling of well-being. This was useful in mild reactive depressions, but caused no significant improvement in severe involutional depressions. Wittson noted that in his series of 100 patients the psychosis was clearly related temporally to the menopause in less than 50 percent. In other patients, it came either before the menopause or more than five years after it. Novak, a prominent gynecologist, reviewing the menopause, pointed out that many symptoms that were thought to arise from the menopause may come ten years before the cessation of menses. He asserted that the only symptoms that are definitely hormone-related are the vasomotor symptoms, which are objective and which respond to estrogen treatment.

Malamud et al. reviewed the evidence and concluded that there was no foundation for considering involutional psychosis as primarily an estrogen deficiency, nor is there any proof that it can be treated successfully by gonadotropic agents. He felt that the menopause was an important factor, but not the cause of the condition. The depression was basically due to the stresses of involution on a personality with prominent features of rigidity, lack of plasticity, and restriction of interests. Bennett and Wilbur showed the new impact of electroconvulsive therapy on the treatment of involutional depression. They reported on a series of seventy-five patients who had not responded to various doses of estrogen but who showed a high percentage of rapid recovery with ECT. The new emphasis on ECT, which was developing at this time, cast estrogen treatment further into the background.

Thus, most investigators have accepted the conclusion that the hormonal change is not the physiologic cause of involutional depression, but only a contributing factor. The predominant current feeling is that only vasomotor symptoms react significantly to estrogen and, specifically, that major depressive symptoms are not improved.

It should be noted that by present-day standards the studies investigating the use of estrogens in involutional melancholia were not adequately designed. The samples were small, there was little apparent attempt at achieving a nonbiased population, and there was no double blind. This was as true for the studies debunking estrogen therapy, as for those with enthusiastic positive results. For instance, one study, which was quoted over and over again as demonstrating the ineffectiveness of estrogens, achieved its results in a population of only ten patients, six women and four men! It is hard to see now how this could have been accepted at the time as disproving the effect of anything.

Another problem is that most of the studies reported patients who had been "psychotic" for one to nine years at the time of treatment. These chronic patients are certainly a different population from that which we are now primarily concerned with, and they might be more resistant to any treatment.

Some of the questions raised with regard to estrogens might, therefore, warrant reinvestigation.

As noted above, about 25 percent of women have physical signs of estrogen deficiency at menopause with vasomotor symptoms, atrophy of vaginal mucosa, etc. It has never been clearly established whether those women who develop severe depressions come from this group primarily, or are scattered throughout the population.

In recent years, findings that estrogen deficiency may cause an increase in symptoms of arteriosclerosis and osteoporosis, in addition to the vasomotor symptoms, have caused a number of gynecologists to consider the endocrinological involution to be a pathologic state of estrogen deficiency, rather than a physiologic one. Some investigators feel that nearly all postmenopausal women should have estrogen replacement. Continued estrogen maintenance could prevent a cessation of menses and decrease physical atrophic changes. Thus, while estrogens are not commonly used to treat already formed depressive syndromes, replacement therapy might be a different question. Whether the subsequent maintenance of physical selfimage would act to decrease the incidence of milder depressions in the involutional years has not been definitively tested in a large population.

There is a second question that would be useful to consider. If one

considers, as many people do, that the full involutional psychotic depressions are either late-onset manic-depressive illnesses, or late-onset unipolar depressions, studies demonstrating that estrogens are not an effective treatment for these severe depressions are really irrelevant. Few people would expect them to be an effective treatment. The issue is not whether estrogens are effective treatment for psychotic depressions of whatever etiology, or whether lack of estrogens are the cause of the depression, but rather, would estrogens help the far more common mild or early depressions of the Climacterium, which are often associated with vasomotor symptoms and changes in the patient's psychosocial situation.

Psychopharmacology

While in the past ten years there has been a great deal of interest in the role of catecholamines, serotonin, and steroid metabolism in the etiology and development of depression, there has been little effort to investigate involutional depression specifically from this point of view. The major reviews of the role of catecholamines and indoleamines in depression usually do not even mention involutional depression as a separate entity. Similarly, studies of corticosteroid function and depression ignore the question of involutional depression as a separate entity.

Genetics

The role of heredity has always been felt to be less prominent in involutional depression than in schizophrenia or manic-depressive illness. Kraepelin noted that defective heredity occurred in only a little more than half of his cases, but that relatives of melancholics often suffered from apoplexy, senile dementia, or alcoholism.

Two early modern researchers in the 1940s and 1950s, Kallmann' and Stenstedt, took opposing points of view. In his early studies, Kallmann found a relatively high incidence of schizophrenics in families of involutional psychotics, and found no relationship to manic-depressive illness. He concluded that involutional psychosis is pluridimensional and partly nonspecific with multiple factors of causation. He felt that while there is no single factor genetic mechanism, the people most likely to break down under the emotional impact of involutional stresses were those with schizoid personalities (under which he included the traits of rigidity, compulsiveness, and oversensitivity). These he considered heterozygous carriers of schizophrenia, which he felt explained the higher incidence of schizophrenia in their families.

Stenstedt, on the other hand, in a large genetic study from Swedish hospitals, made an effort to exclude paranoids and schizophrenics from his probands (and criticized Kallmann for including paranoid cases). Stenstedt found relatives of his probands with involutional melancholia, manic-

depressive illness, and endogenous depression, but found no relationship to schizophrenia. He found that the risk of all affective disorders in the relatives of his patients was about twice that of the general population. He concluded that his probands were etiologically heterogeneous and that involutional depression probably consisted of some cases of late manic-depressive illness and others of exogenous or reactive depression.

Hopkinson studied 100 patients aged over fifty who were admitted depressed. He divided them into "early onset" (those who had had previous attacks before they were fifty) and "late onset" (whose first depressive episode was past fifty). He found little difference in the symptomatology between early-onset and late-onset patients although, perhaps somewhat surprisingly, he found less agitation in late-onset patients. When examining the relatives of his patient population he found that late-onset patients had fewer relatives with a history of depression than had early-onset patients. The age of onset of depression, however, for affected relatives of late-onset patients were the same as the age of onset for relatives of early-onset patients. That is to say, the type of depressive illnesses of the relatives of lateonset patients was the same as of relatives of early-onset patients, and the depressive illnesses of the relatives of late-onset patients were not of late onset themselves. He concluded, as had Stenstedt before him, that his population was heterogeneous and nonspecific. He also agreed with Stenstedt in finding no increase in schizophrenia in the relatives of his patients.

Hopkinson and Ley reported on 182 patients of all ages. They found that there was a marked drop in the number of affected relatives for patients whose age of onset was more than thirty-nine. They concluded that late-onset patients may be different nosologically with fewer recurrences, less mania, and less family history; although their final common pathway clinically was the same with similar depressive symptoms.

Most other modern genetics studies use a distinction between bipolar affective disorder (in which the patients have had episodes of mania as well as depression), and unipolar depression in which there have been no episodes of mania. (Involutional melancholia is thus considered as late-onset unipolar depression.) The unipolar-bipolar distinction was introduced by Leonhard in 1959, and expanded in a monograph by Perris. Perris found that affected relatives of patients with bipolar depressions were mainly bipolar, and vice-versa.

Angst, in a major monograph, concluded that cycloid (bipolar) and monophasic (unipolar) syndromes were genetically distinct. He felt that there was a major autosomogene in the bipolar depressions and a multifactorial etiology in the unipolar depressions.

Winokur et al. reported a study comparing early-onset unipolar depressions with late-onset unipolar depressions. He confirmed Hopkinson's

results, finding that there were more relatives of early-onset patients affected than of late-onset patients, and especially more female relatives. Woodruff et al. also used the distinction between unipolar and bipolar depressions. He confirmed that late-onset unipolar patients had less family history of psychiatric hospitalizations, suicide attempts, and family alcoholism.

Thus, from the genetic point of view, involutional depression is now considered as late-onset unipolar depression with fewer affected relatives than early-onset depression or bipolar depression, but with no relationship to schizophrenia. It is usually not considered a genetically distinct illness.

Psychological Aspects of Depressions of the Involutional Years

In "Mourning and Melancholia," Freud discussed a small number of cases of melancholia with "indisputable" psychogenic etiology and warned against assuming general validity for his findings. Nonetheless, the conclusions of his paper are widely held to represent the psychodynamics of depression in general. Freud emphasized the similarity of melancholia to mourning, with the addition of a marked tendency to self-reproach and a fall in self-esteem. He noted that in grief the world becomes empty, while in melancholia it is the ego which becomes empty. He also found an inability, in some cases, to discover what object has been lost and concluded that in these cases there has been an unconscious loss.

Freud concluded that part of the disposition to succumb to melancholia comes from a narcissistic object choice, which regresses to narcissism. This entails the introjection of an ambivalently held object; the self-reproaches are directed at this introjected part of the ego. Thus, the reproaches fit someone "whom the patient loves, has loved, or ought to love." He also noted the sadistic aspects of the self-punishment as the patient torments the original love object with the illness, while avoiding the direct expression of hostility.

Although Freud was not pessimistic, psychoanalytic writers were reluctant to treat involutional psychotics, both because of their age and because of the psychotic nature of their illness. This neglect by psychoanalysis meant that the psychodynamics of the involutional period received little attention. Fenichel's encyclopedic monograph of psychoanalytic theory devoted only one short paragraph to involutional melancholia and acknowledged: "Psychoanalytically, not much is known about the structure and mechanisms of involutional melancholias." However, he described the mechanism of melancholia as the failure of a rigid, compulsive defensive system with oral regression.

By the 1940s, there was a new interest in the meaning of involution to the patient and especially to women. This included speculation about the possible relationship of the psychological aspects of involution to the etiology of involutional psychosis.

Deutsch, in her classic study of the psychology of women, emphasized that dealing with the organic decline was one of the most difficult tasks of a woman's life. Old oedipal relationships and problems, worked out a second time in puberty, are faced a third time in the Climacterium. The symptoms seen in puberty in any given patient may thus be similar to those seen in the Climacterium, and a stormy puberty may warn of a stormy involution.

Benedek emphasized the Climacterium in women as a developmental period in the sense that it is a period of intrapersonal reorganization. She also noted the similarity of the Climacterium to puberty and the menarche, and the repetition of problems faced in assuming the female identity. She felt that, if handled in a healthy way, the decrease in hormonal action and desexualization of emotional needs may release psychic energy for sublimation and further integration of the personality.

Fessler emphasized a premorbid hysterical character in women with involutional "non-endogenous" depressions. She theorized that to a woman the ability to have a child is her compensation for not having a penis. Menstruation is the constant reminder of this and is thus a penis substitute and implies female completeness. The cessation of menses therefore may cause regression and penis envy.

Szalita related involutional depressions to an oral fixation and stated

rather unequivocally that persons who develop involutional disorders can be assumed to have been crippled by a period of oral deprivation at an early age.

The dynamics of depression have been reevaluated in recent years from an ego-psychological point of view. Some of these re-evaluations are quite applicable to involutional depressions. Bibring felt that depression occurs when "A blow is dealt to the person's self-esteem, on whatever grounds such self-esteem may have been founded." It thus represents "the emotional expression of a state of helplessness and powerlessness of the ego." It occurs in situations beyond the power of the ego, when narcissistically important goals seem beyond reach. Thus, using Bibring's formulation, it can be seen that in patients to whom the involutional years represent a loss of selfesteem, change in body image, and possible loss of narcissistically held objects, due either to organic decline or to change in social roles, a depression may be the natural response.

Bemporad emphasizes that guilt is no longer seen as often in depressions as it used to be described, and that this may relate to social changes. He feels that the entire concept of introjection in depression is in need of clarification.

It would appear that depression is brought about by a sense of helplessness to alter oneself or one's environment, together with a future devoid of meaning and gratification . . . depression has been considered here as an affective reaction, elicited by the individual's realization that an

important source of self-esteem and meaning is lost . . . whereas, for some the relationship with the environmental object is crucial, for others a specific cause, social position, or definite self-image may be important.

Both Bemporad and Bibring emphasized the loss of self-esteem and disappointment at the real and prospective nonattainment of goals. Thus, they seem quite applicable to the prospects and disappointment of the involutional years.

Modern text-books emphasize more sociocultural aspects of the involutional period for women. McCandless refers to anthropologic studies showing major shifts in identity, social role, and role expectations at the time of Climacterium that are seen in many cultures. Our own society places great cultural emphasis on youth, attractiveness, and sexuality. At the same time, it has placed a strong positive evaluation on the role of motherhood. Both of these areas of woman's identification and self-esteem suffer losses at the time of the menopause. At menopause, the woman may feel that she is losing her youth and sexual attractiveness. Aging is seen as imminent, and a preoccupation with death may occur. Atrophic changes throughout the body are felt as a loss not only of sexual desirability, but of femininity as well, and a woman may feel that she has lost a part of herself.

The role of motherhood is lost in a double sense: The child-bearing capacity is lost on the one hand, and the growing children are leaving home on the other. Even if the woman had long ago decided against having more

children, the menopause signals the irrevocability of the decision, a sign that the opportunity has passed. For the unmarried woman or the childless woman, the menopause may imply a recognition of nonfulfillment of hopes for marriage, child-bearing, and family.

It has been noted that involutional depressions are seen in women in their middle and late forties and early fifties, while in men they are not seen until the decade later. In the past, this has been because at an age when the woman was losing her cultural role most men were just moving into their peak years of economic role accomplishment, with years ahead before retirement. In recent years, however, there has been a shift in emphasis in the role of women, with less emphasis on motherhood and homemaking and more emphasis on fulfillment through other channels, including economic and other forms of creativity. The effects of such a shift will probably be gradual, but should be interesting to observe.

At any rate, there are major similarities for both men and women in some of the effects of the involutional years. These years represent an inevitable awareness of the nonachievement of some of life's cherished goals. They may also be a time of loneliness. Children are leaving home. Ties with friends of adolescence and early adulthood are loosening. Friends may be dying, with the inevitable reminder that the person himself is aging. These are also years of practical difficulties, of increasing physical disease and disability, and possibly of unemployment or forced retirement.

Symptomatology

Recent studies of the symptomatology of depression in general have not borne out a clear-cut clinical distinction between the depressions of involutional years and those of earlier years.

Tait and associates studied fifty-four women in the involutional age group who were first-admission psychiatric patients. The authors used a free interview technique without rating scales. After excluding hysterics, anxiety states, alcoholics, and late schizophrenics, they were left with only twentynine patients whom they considered as having "endogenous depressive psychotic illnesses." They noted that "These depressions did not seem markedly distinct, symptomatically, from psychotic depressions appearing at other ages," and that "the typical features of traditional or developed involutional melancholia were remarkable in this material only for their almost complete absence." Bizarre hypochondriasis, nihilistic delusions, and great agitation were confined to a handful of cases. The authors suggested the interesting thought that perhaps these are secondary symptoms which in the past have developed with chronicity, but now are aborted by early therapy.

Kendall's study showed that patients with a diagnosis of involutional melancholia have the same symptoms and the same outcome with treatment as do psychotic depressive patients, but differed from neurotic depressives. He concluded that involutional depression differs in no fundamental way from other psychotic depressions.

More recently, a series of studies attempted to use the correlational device of factor analysis to find subsyndromes in depression. These studies have freely included depressed patients of the involutional age range. Factor analytic studies in general terms rate depressed patients on symptom rating scales and attempt to group together those symptoms that are co-variant and those that tend to be present or absent together. These studies have all been remarkable by the absence of any pattern that clearly represented an agitated involutional depression.

Failure of these correlational techniques to demonstrate the classical involutional pattern is not conclusive evidence that it does not exist, but that in the depressive population studied it is not common enough to be demonstrated by these methods.

Conclusion

We are thus left with involutional melancholia as a clinical psychiatric illness cited by the textbooks and the classification systems, and with a fairly well-defined symptom pattern, premorbid personality, onset, course, prognosis, and response to therapy. The puzzle is, however, whether it really exists as a clinical entity. As Tait stated, "... while most of us still carry in our minds the Gestalt of a classical involutional melancholia, we may confess that such pictures are increasingly rare, or alternatively are swamped by the larger mass of mild depressions of the involution which therapy has given us the encouragement to discover." Thus, we all know a classic case of involutional melancholia when we see one, but it is not clear whether this is a distinct syndrome with its own ideology, natural history, and clinical picture, or whether it is a severe depression of the involutional years which shades off continuously with mildly menopausal neuroses on a vertical severity axis, and with other psychotic depressions on a horizontal descriptive axis.

The old debate as to whether involutional melancholia is a subtype of manic-depressive disease seems fairly irrelevant today. Involutional melancholia is probably best thought of in the terms introduced by psychiatric genetics, as a late-onset unipolar depression, which in practice is not clinically distinguishable from other unipolar depressions.

A more relevant question is the relationship between the classical involutional melancholia syndrome and the multitudinous mild depressions and mixed depression and anxiety states of the Climacterium. Part of the problem is dilution. As recently as twenty years ago, psychiatric hospitals were populated primarily by psychotic and organic patients. Patients described as involutional melancholics made up a small but appreciable

percentage of these patients. Studies dealing with involutional melancholics primarily dealt with these hospitalized patients. In recent years, with the reorientation of psychiatric practice and facilities, and with the change in public attitudes towards mental hospitalization, there has been a flood of youthful patients with nonpsychotic, voluntary hospitalizations.

As a second consideration, the symptoms of involutional melancholia may have been secondary symptoms, or the accretions of chronicity. In the past, patients waited longer before coming for psychiatric care, remained a longer time, became more psychotic, and developed a full flowering of symptoms. Now, they may be treated earlier by their family physician, psychiatrist, or outpatient clinic, with antidepressant medications, or ECT. The onset of the old involutional melancholia syndrome was noted as being gradual, and if seen early in the course the patients probably would be diagnosed as depressive neurotics. It is probably that the syndrome is now aborted at this stage in most patients.

Most of the studies done in the past, whether from a point of view of the effect of estrogens, clinical symptomatology, or course of the illness, dealt with those patients who had progressed to major psychotic depressions. Thus, the results of these studies may have very little to do with the large number of mild depressions that develop under the psychological and social stresses of the Climacterium. Under these stresses, it is probable that

depressive illness may emerge in many different kinds of patients and in varying degrees of severity. These might include patients with obsessive, hypochondriacal, and hysterical life patterns, those with depressive reactions to loss, and others with possible first or recurrent episodes of manicdepressive illness. The full-fledged involutional depression may have represented the untreated course of only a small part of the minor depressive illness seen during the Climacterium. It may have represented a variant of the "endogenous" basic depressive pattern, and whatever specific symptomatology was present was possibly shaped by factors of age and cultural setting.

It is now the predominant opinion that involutional depression probably does not represent a specific syndrome. It is clear, however, that the whole subject of depressions in the involutional years has become a relatively stagnant subject with little research work being done. As patients with mild or moderate depressive illness during this period make up a fairly large population, further studies of this area would be warranted.

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