

12. Cycloid Psychoses

In his textbook, *The Classification of Endogenous Psychoses*, Leonhard (1957) pooled together three different forms of psychoses: motility psychosis (Wernicke, 1894, 1900; Funfgeld 1936), confusion psychosis (Kleist 1921) and anxiety-happiness (elation) psychosis (Leonhard 1934, 1939) under the heading of cycloid psychoses. He separated cycloid psychoses from the phasic and schizophrenic psychoses and defined them as a group of remitting bipolar disorders which resemble the phasic psychoses in their course and the nonsystematic schizophrenic psychoses in their content.

Leonhard (1960) noted the great similarity in contents between the nonsystematic schizophrenias and cycloid psychoses. Yet, he emphasized the essential difference between these two groups of disorders.

Cycloid psychoses displayed complete recovery between episodes. In this respect they resemble phasic (affective) psychoses to the extent that if full recovery is not achieved the possibility of mis-diagnosis needs to be considered. Chronic courses are exceptionally rare. If they occur, however, cycloid psychoses "lose their tension" after repeated periods of hospitalization.

Conceptual development of cycloid psychoses dates back to the work of the 19th century French school (Fish 1964b; Brockington, Perris and Meltzer 1982). Legrain (1886) and Magnan (1893) recognized that within Morel's (1860) "degeneration psychoses" (psychoses that are the result of a degenerative process within a given family) there were illnesses with an acute or subacute onset (Legrain 1886) which followed a phasic, episodic course (Magnan 1893) with full remission between episodes.

The diagnostic concept of "cycloid psychoses" was further elaborated by Schroder (1922) who referred to this group of disorders as "metabolic psychoses." Gaupp (1926) called them "mixed (*combinierten*) psychoses" because of the mixture of "schizophrenic" cross-sectional psychopathology with a longitudinal-course resembling manic-depressive illness. The separation

of two distinct illnesses from this mixed group of psychoses, motility psychoses (Wernicke 1894) and confusion psychosis (Kleist 1921), yielded the concepts of “autochthonous degeneration psychoses” and “cycloid marginal psychoses” (which include both motility and confusion psychoses) in the work of Kleist (1921,). Subsequently, the identification of a third distinct illness, anxiety-happiness psychosis (Leonhard 1934), resulted in the present concept of cycloid psychosis which includes motility, confusion and anxiety-happiness psychoses (Leonhard 1957).

In his lecture at the Royal Edinburgh Hospital for Nervous and Mental Disorders on June 27, 1960 Leonhard (1961) defined cycloid psychoses as a group of acute, reversible psychoses which do not fulfill the criteria of schizophrenic or manic-depressive illness. He reasserted that cycloid psychoses appear in three different bipolar forms of illness, motility psychosis, confusion psychosis and anxiety-happiness psychosis, each consisting of contrasting clinical states which may occur at different times but are never present simultaneously. Thus, the prevailing manifestations of motility psychosis are hyperkinesia or akinesia. In contradistinction to periodic catatonia, however, there is never an admixture of hyperkinesia and akinesia. Confusion psychosis in the excited phase is characterized by incoherent thinking, misidentifications and pressure of speech. In the inhibited phase pressure of speech is replaced by a decrease in verbalization. The third disorder, anxiety-happiness psychosis, is manifest with prevailing anxiety or elation (happiness). A desire to make others happy is pathognomonic of happiness psychosis.

In cycloid psychoses there is no overlap between the two opposite poles in any one of the three illnesses. On the other hand, the three cycloid psychoses are not sharply separated from each other. The same applies to the differentiation of cycloid psychoses from the nonsystematic schizophrenias: motility psychosis from periodic catatonia, confusion psychosis from cataphasia and anxiety-happiness psychosis from affect-laden paraphrenia. Not infrequently, the final diagnosis must be withheld and decided upon on the basis of the outcome of the illness, i.e., full recovery in cycloid psychoses and partial remission in the nonsystematic schizophrenias.

The concept of cycloid psychosis was further elaborated in the work of Perris (1973, 1974) who put forward an operational definition for this diagnosis. According to Perris, to qualify for a diagnosis of cycloid psychosis, the patient must have affective symptoms (mood swings) associated with confusion, delusions of reference, motility disturbances, ecstasy and/or pan-anxiety. He shifted the emphasis from paranoid anxiety or motility extremes to acute onset, polymorphic (multiform) symptomatology and confusion. Of particular importance is the

polymorphic clinical picture with all sorts of symptoms jumbled together, suggesting the presence of several different disorders, none of which is dominant or persistent. The clinical picture may shift from one syndrome to another and there is never a fully developed stable manic, depressive, or paranoid syndrome present.

The shift of emphasis in the definition of cycloid psychosis is possibly responsible for the difference in reported prevalence rates between Leonhard's (1957) study carried out in Frankfurt from 1938 to 1942 and, subsequently, in Berlin and the study of Cutting, Clare and Mann (1978), carried out in London on patients admitted to the Maudsley professorial unit from 1955 to 1964. In the Frankfurt-Berlin study (Leonhard's criteria) out of 1,537 patients, 837 were schizophrenic, 282 manic-depressive and 418 cycloid. In the London study (Perris' criteria), out of 2,500 admissions only 73 or 3% of all admissions and 8% of all psychotic admissions were cycloids. Cycloid psychosis was the fourth most common psychotic diagnosis in the Maudsley series, after depressive psychosis (18%), schizophrenia (16%) and organic conditions (10%). The different definitions, used in the two cohorts, might also explain why in the German sample the most frequently occurring cycloid disorder was anxiety-happiness psychosis (178 patients) followed by confusion psychosis (142 patients) and motility psychosis (98 patients), whereas in the British sample the least numerous subgroups were the ones with manifestations of ecstasy (7 patients) and pan-anxiety (30 patients).

In spite of the differences in the frequency of occurrence in the two studies, results of the survey carried out by Cutting, Clare and Mann (1978) favor Leonhard's contention that cycloid psychosis is a nosologically distinct category within the endogenous psychoses. In a follow-up examination of 90% of their 73 cycloid patients, they found that compared with other psychoses, the cycloids had the highest recovery rate (90%), the highest proportion of patients with at least one remission and the highest admission and episode rates (.28 and 0.30/year, respectively). They spent more time in hospitals than depressed or manic patients (.86 months/year, compared with .24 and .46, respectively), but much less than schizophrenic patients (2.52 months/year). The distinctiveness of cycloid patients on outcome measures was also substantiated in the study of Brockington, Perris, Kendell et al. (1982). In a series of 233 patients, they found that 90% of 30 patients with cycloid psychosis fully recovered, while only 67% of the patients fully recovered in the whole group. When compared with schizophrenia, patients with cycloids psychosis fared even better; 92% of the 24 cycloid patients given a CATEGO diagnosis of schizophrenia made a

full recovery compared with the 59% in the 102 non-cycloid CATEGO schizophrenics.

In the DCR (Pethö, Ban, Kelemen et al. 1984) substantiation of a diagnosis of cycloid psychosis is based on the evaluation of 16 variables. The diagnosis is essentially made on the basis of Leonhard's principles, although Perris' criteria, such as acute or subacute onset, polymorphic-fluctuating symptomatology, mood swings and thematic incoherence, are also considered. Attention is focused on the presence of protopathic change of Gestalt, in spite of the recognition that in Conrad's (1958) work this is pathognomonic of schizophrenic psychopathology and not of cycloid psychosis. Furthermore, insofar as outcome is concerned, personality changes are considered to be an acceptable alternative to full recovery.

Cycloid psychosis is not an accepted diagnostic category either in ICD-9 or in DSM-III. Contrary to the commonly held belief that patients with this diagnosis are subsumed under schizophrenic disorders, schizoaffective type in ICD-9 and schizoaffective disorder in DSM-III, there is substantial evidence to believe that this is not the case. However, there is a fair concordance between cycloid psychoses in the series of patients, i.e., 134 patients in the Hetherne series (Cooper, Kendell, Gurland et al. 1972) and Kasanin's (1933) acute schizoaffective psychosis (Kappa = .42 and .37, respectively). However, Brockington, Perris, Meltzer et al. (1982) found that of the 100 patients meeting Kendall's study criteria for schizoaffective psychosis (Kendell and Brockington 1980), only 20 patients (19%) met Perris' (1974) criteria for cycloid psychosis. On the basis of these findings Brockington, Meltzer and Perris et al. (1982) asserted: "it is obviously a mistake to regard cycloid psychosis as a synonym for schizoaffective disorders." The same applies to manic-depressive psychosis. In spite of all the similarities between cycloid and manic-depressive psychosis, "there was a negligible overlap between these two disease concepts" in the Netherne series.

In two clinical studies in which the correspondence between cycloid psychoses and hospital diagnoses was explored, no consistent relationship was found. In the clinical study of Cutting, Clare and Mann (1978) the hospital diagnoses (based on ICD-9) of 73 cases of cycloid psychosis were: schizophrenia in 33, schizoaffective in 20, affective in 11 and atypical psychoses in 9 patients. Similarly, the diagnosis of 30 cycloid patients in the clinical study of Brockington, Meltzer and Perris et al. (1982) were schizophrenia (including schizoaffective schizophrenia) in 18, mania in 7, depressive psychosis in 4 and puerperal psychosis in 1 patient. In the same study, CATEGO classification was S+ in 18, M+ in 5, O+ in 3, P+ in 3 and D+ in 1 patient. RDC

diagnoses were schizoaffective depression in 11, schizoaffective mania in 6, both in 1, schizophrenia in 7 and mania in 5 patients; and DSM-III diagnoses were depression with mood incongruent psychotic features in 10, with mood congruent features in 6, schizophreniform psychosis in 5 and schizophrenia in 2 patients. On the basis of these findings Brockington, Meltzer and Perris et al. (1982) conclude that "in terms of the ICD and CATEGO systems, a majority had some form of schizophrenia, while in terms of the two American systems a majority had mood-incongruent or schizoaffective depression or mania."

Finally, it should be noted that Fish (1964b) considered cycloid psychosis as one of four different kinds of atypical psychoses. The other three are atypical manic-depressive psychoses, psychogenic reactions and epileptoid psychoses. He contends that the differentiation of cycloid psychoses from the other forms of atypical psychoses is an essential prerequisite for meaningful research on these disorders.

Differential characteristics of the three cycloid psychoses were described by Leonhard (1957, 1961), Fish (1962, 1964b) and Pethö, Ban, Kelemen et al. (1984).

Confusion Psychosis

The separation of confusion psychosis from confused manias dates back to Wernicke (1900) who referred to confusion psychosis as "periodic maniacal autopsychosis" or "agitated confusion." A quarter of a century later the first comprehensive description of confusion psychosis was given by Kleist (1921). Consolidation of the concept is attributed to Funfgeld (1936) who was the first to explore the possible hereditary pattern of this disorder.

In the original formulation, confusion psychosis is a pure thinking disorder, an illness in which thinking is exclusively affected while affectivity and psychomotor activity are preserved. The disorder in the excited phase of the illness is expressed in "incoherence" or in less severe cases in "incoherence of thematic choice" also referred to as "digressive thematic choice." Thus, for example, if asked to differentiate between a tree and a bush, the patient responds by describing the berry bushes at home. If asked to differentiate between giving and lending, patient responds by speaking about gifts and celebrations. Other characteristics of the excited phase are compulsive speech, intrusion of abnormal contents, misidentifications, ideas of reference and sensory (most frequently auditory) illusions.

The thinking disorder in the inhibited phase of the illness is expressed in the form of inhibited thinking associated in the more severe form with mutism and in the less severe form with impoverished speech. Other characteristics of the inhibited phase are perplexity, ideas of reference and hallucinations (auditory, visual and somatic).

Ideal – pure – form of confusion psychosis rarely occurs. In the majority of patients, the manifestations of confusion psychosis are present in association with features of motility psychosis and/or anxiety-happiness psychosis.

In the differential diagnosis mania and catatonic schizophrenia should be considered. Confusion psychosis, in the excited phase, shares with mania pressure of speech. In contradistinction to mania, however, distractibility and flight of ideas are absent, while misidentifications are frequent.

The signal difference between confusion psychosis in the inhibited phase and catatonic schizophrenia is the perplexed and anxious mood. It is present in patients with confusion psychosis, but absent in patients with stuporous catatonia.

Motility Psychosis

The first description of hyperkinetic and akinetic motility psychoses dates to Wernicke (1900). He did not regard these syndromes, however, as two different forms of an independent disease but regarded them as syndromes found in a number of different illnesses. It was Kleist's (1921) contribution to formulate a nosological conception and to separate motility psychosis from periodic catatonia and other catatonic schizophrenias.

In the original formulation motility psychosis was a pure psychomotor disorder, an illness in which psychomotor activity was exclusively affected while thinking and affectivity were preserved. The psychomotor disorder in the excited phase of the illness was manifested in the form of "hyperkinesia." The increase of motor activity was quantitative in nature. It affected both expressive and reactive movements. Hyperkinetic patients relate to all events in their environment and display a great deal of expressive and reactive movements, such as facial expressions and gestures.

The psychomotor disorder in the inhibited phase of the illness was manifested in the form of "hypokinesia" or in the most severe cases, in the form of "akinesia." Like in the hyperkinetic

phase, the decrease of motor activity was quantitative in nature and affected both expressive and reactive movements. Lack of reactive and expressive movements characterizes akinesia. If akinesia is present, even the necessary reactions to external events and bodily needs may be absent.

Ideal – pure – form of motility psychosis rarely occurs. In the majority of patients, manifestations of motility psychosis are present in association with features of confusion psychosis and/or anxiety-happiness psychosis.

In the differential diagnosis, mania and periodic catatonia should be considered. Motility psychosis, however, differs from mania by the lack of pressure of speech. Instead, speech is characterized by short phrases followed by long pauses.

The signal difference between motility psychosis and periodic catatonia is that in motility psychosis the pathology is restricted to the quantitative aspects of psychomotricity, while in periodic catatonia psychomotor activity is affected not just quantitatively but also qualitatively. If a patient shows changes in both directions these follow one another in case of motility psychosis and do not occur simultaneously. In contrast, the simultaneous presence of hyperkinetic and akinetic pathology is indicative of periodic catatonia (Table 5).

Table 5

Manifestations	Confusion Psychosis	Motility Psychosis	Anxiety-Happiness Psychosis	Manic Psychosis	Catatonic Schizophrenias
Thinking affected	+	-	-	+	+
Psychomotricity affected	-	+	-	+	+
Affectivity affected	-	-	+	+	-
Pressure of speech	+	-	-	+	-
Flight of ideas	-	-	-	+	-
Speech: short phrases followed by long pauses	-	+	-	-	-
Perplexed and/or anxious Mood	+	+	+	-	-
Misidentifications	+	-	-	-	-

Quantitative changes of psychomotricity	-	+	-	+	+
Qualitative changes of psychomotricity	-	-	-	-	+

Schematic presentation of the dominant features (+) which differentiate confusion, motility and anxiety-happiness psychoses from manic psychosis and the catatonic schizophrenias. A (-) does not imply the absence of the particular manifestation.

Anxiety-Happiness Psychosis

The identification of a separate “anxiety psychosis” and a separate “expansive autopsychosis with autochthonous ideas” dates to Wernicke (1900). The first comprehensive description of anxiety-happiness, also referred to as anxiety-elation psychosis, was formulated by Leonhard (1934, 1957) considerably later.

In the original formulation anxiety-happiness psychosis was a pure disorder of affectivity. In other words, it was an illness in which affectivity was exclusively affected while thinking and psychomotor activity remained preserved. The disorder of affectivity in the anxiety phase was manifested as anxiety accompanied by mistrust, self-references, hypochondriacal ideas, feelings of inferiority, sensory illusions and the feeling of being influenced.

The disorder of affectivity in the happiness phase of the illness is manifest as ecstasy accompanied by ideas of happiness and occasionally by sensory illusions and ideas of reference. Ideal – pure – form of anxiety-happiness psychosis rarely occurs. In the majority of patients, manifestations of anxiety-happiness psychosis are present in association with features of motility psychosis and/or confusion psychosis.

Differential Characteristics

In the DCR (Pethö, Ban, Kelemen et al. 1984) cycloid psychoses consists of three major diagnoses (confusion psychosis, motility psychosis and anxiety-happiness psychosis) and each disorder consists of two subtypes. Thus, confusion psychosis may appear as inhibited or agitated

confusion psychosis, motility psychosis as hyperkinetic or akinetic motility psychosis and anxiety-happiness psychosis as anxiety or happiness psychosis.

Each diagnosis is characterized by eight symptoms and within these eight symptoms each subtype is characterized by four. Two of the eight symptoms, i.e., one symptom for each subtype, are considered to be pivotal symptoms and their presence obligatory for the diagnosis. Thus, a prerequisite for the diagnosis of confusion psychosis is the presence of inhibited or agitated confusion; for motility psychosis, the presence of hyperkinesia or hypokinesia; and for anxiety-happiness psychosis, the presence of anxiety or ecstasy. In addition, for the diagnosis of inhibited confusion psychosis, the presence of inhibited thinking and/or decreased talkativeness and/or mutism is also necessary; and for the diagnosis of agitated confusion psychosis, the presence of thematic incoherence and/or increased talkativeness and/or misidentifications. Similarly, for the diagnosis of akinetic motility psychosis, the presence of decreased expressive, reactive and/or voluntary motor activity is required; and for the diagnosis of hyperkinetic motility psychosis, the presence of increased expressive, reactive and/or voluntary activity. Finally, for the diagnosis of anxiety psychosis the presence of ideas of reference and/or delusional perceptions and/or feelings of inferiority is mandatory; and for the diagnosis of happiness psychosis, the presence of ideas of happiness and/or desire to make others happy and/or exaggerated self-esteem.

Corresponding diagnostic categories in ICD-9 and DSM-III have not been identified. It is likely, however, that confusion psychosis is usually diagnosed as acute schizophrenic episode in ICD-9; schizophrenic disorder disorganized type in DSM-III; motility psychosis as schizophrenic psychosis catatonic type in ICD-9; and schizophrenic disorder catatonic type in DSM-III. Furthermore, anxiety-happiness psychosis is usually diagnosed as schizophrenic psychosis paranoid or schizoaffective type in ICD-9 and schizophrenic disorder paranoid type or schizoaffective disorder in DSM-III. However, since cycloid psychoses usually display multiform (polymorphic) symptoms they may be diagnosed as schizophrenic psychosis, affective psychosis, other nonorganic psychosis or paranoid state in ICD-9; similarly, they may be diagnosed as schizophrenic disorder, affective disorder, psychotic disorder not elsewhere classified or paranoid disorder in DSM-III.

Therapeutic Considerations

As a diagnostic formulation is a prerequisite for treatment and/or for the study of the effectiveness of different treatment modalities, cycloid psychoses have no generally accepted therapy which is based on findings in properly designed and conducted clinical studies. In spite of this there is sufficient evidence to believe that patients with cycloid psychoses show a differential response to antipsychotics, antidepressants and mood-stabilizer lithium salts. The same applies to the three different forms and the six subtypes.

A pattern frequently seen in the pharmacotherapy of cycloid psychoses is that the patient becomes depressed when treated with an antipsychotic neuroleptic, increasingly psychotic when treated with an antidepressant and develops a toxic confusional state when given lithium salts. The prototype of such patients was a 24-year-old woman with a hyperkinetic motility psychosis. She was brought to hospital because of alleged erotic advances to unknown men in public. During the initial period of hospitalization, she displayed severe hyperkinesia with stamping of feet, squinting and grimacing. When questioned she responded with excessive movements but with short phrases followed by long pauses. The provisional diagnosis of mania was made, and haloperidol was prescribed. As a result, excessive movements ceased and were replaced by severe akinesia.

As the akinesia was so severe that patient stopped responding to bodily needs, medication was discontinued. Discontinuation of haloperidol resulted in a shift back to the hyperkinetic state. Lithium was prescribed, but it had to be stopped because of the confusional state it induced even when given below therapeutic blood levels. After approximately 12 weeks of unsuccessful therapeutic attempts with various neuroleptics, the patient promptly responded to electroconvulsive treatment. Remission was complete and there was no recurrence of psychosis during a three-year follow-up period.

There are indications that a considerable proportion of patients with cycloid psychosis are treated with ECT, lithium salts and/or different drug combinations, i.e., antidepressant-antipsychotic, anxiolytic-antidepressant, lithium-antipsychotic, and antidepressant-lithium. In the absence of recognized treatment, ECT remains the most effective and reliable method among the various treatment modalities employed.

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