

First-Onset Functional Brief Psychoses in the Elderly



Yoram Barak, MD, MHA^{1,3}; Daniel Levy, MD^{1,3}; Henry Szor, MD^{1,3}; Dov Aizenberg, MD^{2,3}

¹ Abarbanel Mental Health Center, Bat-Yam; ² Geha Mental Health Center, Petah-Tikva;

³ Sackler Faculty of Medicine, Tel-Aviv University, Tel Aviv, Israel

ABSTRACT

Background and Purpose

The origin and nosological status of psychotic states first arising in late life remain uncertain. We aimed to evaluate the diagnostic stability of brief psychoses with late-life onset.

Methods

A 10-year retrospective analysis of all records of elderly patients with a first-ever episode of psychosis was undertaken.

Results

Of 2,072 admissions of elderly patients, 604 had their first brief psychotic disorder (*International Classification of Diseases* diagnoses). All “organic” psychoses were excluded. The study sample comprised 83 individuals (36 male, 47 female) with a mean \pm SD age of 75.4 \pm 9.3 years (range: 65–92). Mean follow-up duration was 27.7 months (range: 6–120). Distribution of diagnoses was as follows: unspecified nonorganic psychosis ($n = 71$); persistent delusional disorder ($n = 10$); other nonorganic psychosis ($n = 1$); and acute and transient psychotic disorder ($n = 1$). At follow-up, diagnosis of very late-onset schizophrenia-like psychosis and switch to another brief psychotic disorder were the most frequent outcomes.

Conclusions

The diagnosis of a nonorganic psychosis first manifesting in the elderly is not rare in tertiary care. Diagnostic shift at follow-up of these patients is more common than conceptualized, requiring flexibility on the part of treating physicians.

Keywords: Psychosis, elderly, progression, outcome

INTRODUCTION

The usefulness of diagnostic categories depends on temporal stability, especially in the broad category of psychoses.⁽¹⁾

Comparisons between the psychiatric diagnoses assigned to patients on successive admissions and at other points in time (the “stability” model) have been published as early as 1938.⁽²⁾ All the disorders within the *Diagnostic and Statistical Manual of Mental Disorders*, 4th revision (DSM-IV) category of schizophrenia and other psychotic disorders are characterized by having psychotic symptoms as their defining feature. The latest versions of the DSM and the *International Classification of Diseases*, 10th revision (ICD-10) have grouped together a number of disorders that all have a psychotic “core.” Included within this category are several disorders: schizophreniform disorder, delusional disorder, brief psychotic disorder, shared psychotic disorder, and psychotic disorder not otherwise specified (NOS). The ICD-10 classification of the brief psychotic disorders that parallels the DSM scheme is as follows: unspecified nonorganic psychosis, persistent delusional disorder, other nonorganic psychosis, and acute and transient psychotic disorder. Logical classifications are characterized by precise stipulation of the characteristics or combinations of characteristics that define the individual classes, whereby all phenomena that occur in the area of evaluation are considered, and inclusion and exclusion criteria for assignment of individual cases to classes are defined. Most empirical classifications do not achieve the criteria that are valid for logical classifications, especially in the class of psychotic disorders.⁽³⁾

While the diagnostic stability of schizophrenia and other long-standing psychoses is relatively high,⁽⁴⁾ the prognosis and outcome of the acute and transient psychotic disorders are largely obscure. The changes in diagnosis after a first admission due to psychosis were recently investigated by Schwartz *et al.*,⁽⁵⁾ emphasizing that changes to a diagnosis of schizophrenia are mostly attributable to the evolution of the illness. On the other hand, several investigators have argued that the entity of psychosis NOS is the least stable of the first-admission diagnoses among the psychoses.^(6,7)

Psychotic symptoms presenting in late life offer a diagnostic challenge.^(8,9) Indeed, the nonorganic, nonaffective psychoses that have their first onset in late life have been the subject of diagnostic dispute for many years.⁽¹⁰⁾ Are they the late manifestation of schizophrenia but with a delayed-onset prodrome of dementia, or are these not different from the brief

psychoses encountered in young adults? In comparison with early-onset psychosis, late-onset psychosis is characterized by differences in both its risk factors and its typical signs and symptoms. We have investigated the occurrence of very late-onset schizophrenia-like psychosis (VLOSLP) and its diagnostic stability over time.^(11,12) Temporal stability was suggested, as these patients present with stable cognitive and everyday functioning compared with chronically institutionalized elderly patients with schizophrenia.

There is a dearth of literature concerning the evolution of psychotic symptoms with first onset in elderly patients, and this complicates management.⁽¹³⁾ The aim of the present study was thus to analyze the stability or change in the diagnosis of psychotic states arising for the first time in late life.

METHODS

All inpatients' records over a 10-year period at the Abarbanel Mental Health Center, Bat-Yam, Israel, served as the sample source. The center is a large, urban, university-affiliated psychiatric hospital. The hospital has no selective admission policy and is the only tertiary care psychogeriatric facility in the area. At our center there are 330 inpatient beds and 60 day-patients, as well as a large outpatient clinic. The center serves a catchment area of approximately 850,000 people, of whom 14.3% are 65 years or older, and possibly includes the majority of potential incidence cases.⁽¹⁴⁾

We conducted a 10-year retrospective analysis of all records of elderly patients with psychoses admitted to our center. This study was approved by our center's Internal Review Board (IRB).

Patients

Inclusion criteria were age 65 years and older, psychosis (based on the presence of delusions, hallucinations, disorganized speech, and/or grossly disorganized behavior), and the current episode being the first episode of any major psychiatric problem. Exclusion criteria were onset of the episode more than 4 weeks before the initial assessment (in order to capture only acute and transient psychotic conditions), suspicion of organic conditions or substance abuse directly contributing to the emergence of symptoms (not merely a comorbid condition), a history of neurological disorders, head injury, epilepsy, mental retardation, and follow-up of less than 6 months. Specifically, patients with a first-time diagnosis of schizophrenia were excluded. Imaging and EEG studies were performed as requested by the in-house neurology and internal medicine specialists. All patients had been tested using the Mini Mental State Examination, and those with a score below 21 were not considered to have "functional" psychosis.

A research psychiatrist (DL or YB) decided whether patients met the criteria, based on a review of medical records of interviews with patients and their families, physical examinations, and routine laboratory investigations.

The same two research psychiatrists independently reviewed diagnoses at first admission and at discharge from the last available admission records using all available information at each time point. In cases of disagreement about diagnosis, the psychiatrists met and attempted to reach a consensus. If they did not reach a consensus, the opinion of a third psychiatrist (HS) was obtained.

In this study, information about medication was not obtained or analyzed. We assessed the stability of discharge diagnoses at follow-up by their "consistency," as used by Schwartz *et al.*⁽⁵⁾ In brief, this is the proportion of individuals in a category at discharge who retain the same diagnosis at subsequent admissions, allowing for at least 6 months between the initial diagnosis (baseline) and subsequent diagnosis (follow-up). This would correspond to the positive predictive value if the second diagnosis is the gold standard.

RESULTS

The primary outcome measure predefined for this study was diagnostic stability and is presented for each individual diagnosis.⁽⁵⁾ Prospective consistency (positive predictive value) is the proportion of patients in a diagnostic entity that maintain the same diagnosis at follow-up as they did at baseline (Table 1).

Over a 10-year period, (January 1995 to January 2005) there were 2,072 admissions of patients who were 65 years or older to the Abarbanel Mental Health Center psychogeriatric acute care unit, Bat-Yam, Israel. There were 604 admissions of elderly patients with their first known brief psychotic disorder. The great majority of these psychoses were due to "... brain damage and dysfunction..." (ICD-10 code F 06) or "... unspecified organic or symptomatic mental disorder" (ICD-10 code F 09). We excluded all of these organic psychoses, thus analyzing in the present study 83/604 patients (14% of all patients with their first psychotic disorder) with the following diagnoses: unspecified nonorganic psychosis, persistent delusional disorder, other nonorganic psychosis, and acute and transient psychotic disorder (ICD-10 criteria; codes F 22, 23, 28, and 29, respectively).

The study sample comprised 83 individuals (36 male, 47 female) for whom there were data reflecting at least 6 months' follow-up. Mean \pm SD age of this cohort was 75.4 \pm 9.3 years (range: 65–92). Education was relatively meager for the group, with 13 having no formal schooling, 61 completing elementary school only, and nine having completed high school, college, or university. Mean recorded follow-up duration (time between first and final diagnoses) was 27.7 months (range: 6–120). The distribution of diagnoses was as follows: unspecified nonorganic psychosis ($n = 71$); persistent delusional disorder ($n = 10$); other nonorganic psychosis ($n = 1$); and acute and transient psychotic disorder ($n = 1$).

The most prevalent delusional content in the sample was of the persecutory type (57/83), followed by delusions of jealousy (12/83). Very few patients had presented with

TABLE 1.
Changes in diagnosis over the 10-year study period
among 83 elderly patients

Baseline diagnosis (ICD code)	n	Follow-up diagnosis	n	PC (%)
Unspecified nonorganic psychosis (F 29)	71	Unspecified nonorganic psychosis	21	30
		VLOSLP	23	
		Acute and transient psychotic disorder	14	
		Persistent delusional disorder	11	
		Other nonorganic psychosis	2	
Persistent delusional disorder (F 22)	10	Persistent delusional disorder	1	10
		Affective disorder	2	
		VLOSLP	7	
Other nonorganic psychosis (F 28)	1	Acute and transient psychotic disorder	1	0
Acute and transient psychotic disorder (F 23)	1	Acute and transient psychotic disorder	1	100

Prospective consistency (positive predictive value) is the proportion of patients in a category who maintain the same diagnosis at follow-up as they did at baseline. ICD = *International Classification of Diseases*; PC = prospective consistency; VLOSLP = very late-onset schizophrenia-like psychosis.

hallucinations at the onset of their psychotic episode (9/83), and those were visual, except for one patient with olfactory hallucinations. Mood was most frequently dysphoric or depressed with 3/83 patients only presenting with pronounced manic symptoms.

The follow-up diagnosis was the same as at baseline for 21 patients with diagnoses of unspecified and other nonorganic psychoses, and acute and transient psychotic disorder considered together ($n = 73$, 29%) and for one patient with persistent delusional disorder ($n = 10$, 10%). The most frequent shifts resulted in a diagnosis of VLOSLP (including schizoaffective subtype). Thirty patients (36%) developed VLOSLP, 30 (36%) switched to a different brief psychotic disorder, and 2 (2%) developed an affective disorder.

See Table 1 for details of diagnostic shift and estimates of prospective consistency.

DISCUSSION

In the last decades the elderly population has grown larger, and cases of late-onset psychoses are increasing. The problem of how to classify the psychoses among the elderly remains grounded in beliefs about psychiatric morbidity.⁽¹⁵⁾ Lack of convergence between psychiatrists and other health-care professionals is an obstacle to understanding and managing elderly people with mental disorders, and this needs to be resolved.⁽¹⁶⁾ Already in his 1967 monograph F. Post postulated that "...this concept of a continuum might lead us to regard the persistent paranoid illnesses of late life as manifestations of the schizophrenic reaction type at varying strength...but they rarely show true fragmentation of thinking and other dilapidations of personality functions characteristic of young schizophrenics."⁽¹⁷⁾

The present study demonstrates several notable findings. First, despite the advanced age at onset of psychoses, the most frequent shift in diagnosis over time was to VLOSLP. More than a third of patients had a diagnosis of VLOSLP at follow-up. This is in line with reports of similar work among young adults or adolescents.^(18,19) The occurrence of VLOSLP is reported to be in the range of 17–24/100,000 elderly persons annually,⁽²⁰⁾ and thus the switch rate in the present study even exceeds the expected rate. This may be explained by the increased awareness of the possibility that schizophrenia may present in late life,⁽¹¹⁾ coupled with the reduced stigma of this diagnostic entity. Second, surprisingly the stability of delusional disorder was low in contrast to reports elsewhere.⁽²¹⁾ The small number of patients with an initial diagnosis of delusional disorder may have confounded this outcome. Third, one of the presenting symptoms of dementia is considered to be a psychotic state.⁽²²⁾ It is of note that in our sample not one of the patients had a follow-up diagnosis of dementia. This is probably a reflection of the exclusion criteria applied at the beginning of the study, which excluded any suspected organic psychotic conditions from further analysis. In addition, this may be a local bias, as patients with dementia very rarely are admitted to tertiary care psychiatric facilities in Israel.⁽²³⁾

Our results are generally in line with a recent large-scale survey undertaken in Israel. The study focused on the stability of first-admission psychiatric diagnoses over 14 years. Stability in the range of 68% to 94% was recorded for the group under the ICD diagnostic category schizophrenia and other nonorganic psychoses. However, the specific psychoses included in this broad category were not analyzed separately.⁽²⁴⁾

The present study has several limitations that need be mentioned. First, the retrospective design limits the ability to focus on causality or to capture new data. Second, there is a possibility that sampling was biased due to inclusion of patients admitted to a tertiary care facility. It may be argued that community samples are different. However, it has been

reported that for the functional psychoses of late life there is no notable variance in the information obtained from clinical series and from population-based surveys.⁽²⁵⁾ Third, dementia may have been underrepresented, as the average length of follow-up was relatively short. Nonstandardized assessments were used and data review was not blinded. By design, the admitting physician may have suspected a diagnosis of VLOSLP but not been able to establish it. Thus a follow-up diagnosis of VLOSLP became possible because at least 6 months had elapsed since the first admission. Finally, medical comorbidity, socioeconomic status, and other variables that may extend our observations are lacking.

One of the more frequently used terms in the field of psychotic conditions in the elderly is “paraphrenia.” The term denotes a “basket” diagnosis for elderly patients with accentuated paranoid features. A 10-year follow-up study of paraphrenic patients concluded that late paraphrenia is a heterogeneous syndrome giving the appearance of a spectrum of overlapping conditions with paranoid delusions.⁽²⁰⁾ A group of researchers at the Institute of Psychiatry, London, UK⁽²⁶⁾ attempted to further elucidate the classification of late-life psychoses by emphasizing the role of cognitive deficits in distinguishing between differing psychoses in late life. The relatively intact cognition in VLOSLP is in line with this categorization.

In conclusion, the physician attending to elderly patients needs to be flexible with regard to diagnosis, as the psychotic entities in this age group may evolve over time into different diagnostic categories from those encountered at onset.

CONFLICT OF INTEREST DISCLOSURES

All authors declare no conflict of interest.

REFERENCES

- Kendell RE. The stability of psychiatric diagnosis. *Br J Psychiatry* 1974;124:352–6.
- Masserman TH, Carmichael HT. Diagnosis and prognosis in psychiatry. *J Ment Sci* 1938;84:893–946.
- Möller HJ. Problems associated with the classification and diagnosis of psychiatric disorders. *World J Biol Psychiatry* 2005;6:45–56.
- Amini H, Alaghband-rad J, Omid A, *et al.* Diagnostic stability in patients with first-episode psychosis. *Australas Psychiatry* 2005;13:388–92.
- Schwartz JE, Fennig S, Tanenberg-Karant M, *et al.* Congruence of diagnoses 2 years after a first-admission diagnosis of psychosis. *Arch Gen Psychiatry* 2000;57:593–600.
- Marneros A, Pillmann F, Haring A, *et al.* Features of acute and transient psychotic disorders. *Eur Arch Psychiatry Clin Neurosci* 2003;253:167–74.
- Addington J, Chaves A, Addington D. Diagnostic stability over one year in first-episode psychosis. *Schizophr Res* 2006;86:71–5.
- Soares JC, Gershon S. Therapeutic targets in late-life psychoses: review of concepts and critical issues. *Schizophr Res* 1997;27:227–39.
- Holroyd S, Laurie S. Correlates of psychotic symptoms among elderly outpatients. *Int J Geriatr Psychiatry* 1999;14:379–84.
- Howard R, Reeves S. Psychosis and schizophrenia-like disorders in the elderly. *J Nutr Health Aging* 2003;7:410–1.
- Barak Y, Aizenberg D, Mirecki I, *et al.* Very late-onset schizophrenia-like psychosis: clinical and imaging characteristics in comparison with elderly patients with schizophrenia. *J Nerv Ment Dis* 2002;190:733–6.
- Mazeh D, Zemishlani C, Aizenberg D, *et al.* Patients with very-late-onset schizophrenia-like psychosis: a follow-up study. *Am J Geriatr Psychiatry* 2005;13:417–9.
- Lake JT, Rahman AH, Grossberg GT. Diagnosis and treatment of psychotic symptoms in elderly patients. *Drugs Aging* 1997;11:170–7.
- Barak Y, Olmer A, Aizenberg D. Antidepressants reduce the risk of suicide among elderly depressed patients. *Neuropsychopharmacology* 2006;31:178–81.
- Jabs BE, Verdager MF, Pfulmann B, *et al.* The concept of hebephrenia over the course of time with particular reference to the Wernicke-Kleist-Leonhard School. *World J Biol Psychiatry* 2002;3:200–6.
- Berrios GE. The insanities of the third age: a conceptual history of paraphrenia. *J Nutr Health Aging* 2003;7:394–9.
- Post F. The schizophrenic reaction-type in late life. *Proc R Soc Med* 1967;60:249–54.
- Susser E, Fennig S, Jandorf L, *et al.* Epidemiology, diagnosis, and course of brief psychoses. *Am J Psychiatry* 1995;152:1743–8.
- Susser E, Varma VK, Mattoo SK, *et al.* Long-term course of acute brief psychosis in a developing country setting. *Br J Psychiatry* 1998;173:226–30.
- Holden NL. Late paraphrenia or the paraphrenias? A descriptive study with a 10-year follow-up. *Br J Psychiatry* 1987;150:635–9.
- Hamuro A, Sugai Y, Isono H, *et al.* Clinical characteristics of delusional disorder. *Can J Psychiatry* 2001;46:563.
- Ropacki SA, Jeste DV. Epidemiology of and risk factors for psychosis of Alzheimer’s disease: a review of 55 studies published from 1990 to 2003. *Am J Psychiatry* 2005;162:2022–30.
- Heinik J, Kimhi R. Psychiatric hospitalization of senile and arteriosclerotic dementia patients by commitment order under the 1991 Israeli Mental Health Act. *Med Law* 1995;14:471–8.
- Ponizovsky AM, Grinshpoon A, Pugachev I, *et al.* Changes in stability of first-admission psychiatric diagnoses over 14 years, based on cross-sectional data at three time points. *Isr J Psychiatry Relat Sci* 2006;43:34–9.
- Henderson AS, Kay DW. The epidemiology of functional psychoses of late onset. *Eur Arch Psychiatry Clin Neurosci* 1997;247:176–89.
- Almeida OP, Howard RJ, Levy R, *et al.* Clinical and cognitive diversity of psychotic states arising in late life (late paraphrenia). *Psychol Med* 1995;25:699–714.

Correspondence to: Yoram Barak, MD, MHA, Director, Psychogeriatric Department, Abarbanel Mental Health Center, 15 KKL Street, Bat-Yam, 59100, Israel.
E-mail: mdybarak@gmail.com