

Schizophrenia Suspecta

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Summary. We investigated what makes a Schneider-oriented psychiatrist diagnose “suspected schizophrenia” yet nevertheless stop short of a definitive diagnosis of schizophrenia. We compared the case records of 1208 patients hospitalised for schizophrenia for the first time in their life and all patients with discharge diagnosis “suspected schizophrenia” ($n = 358$).

We found that the main factors for making the diagnosis of “suspected schizophrenia” are, as when using Bleuler’s concept, intrasyndromatological ones, i.e. type, structure and constellation of symptoms. Hereby the non-committal character of the “expression symptoms in the wider sense” (Schneider), i.e. disorders of thought, of affect and behaviour, is of particular importance. Psychotic productive symptoms in the form of delusions or hallucinations alone are not always sufficient to confirm the diagnosis of schizophrenia. Even first rank symptoms cannot establish the diagnosis schizophrenia if certain factors reducing their pathognomonic value are present.

Key words: Schizophrenia – Suspected schizophrenia – Schneider’s concept – First rank symptoms

1. Introduction

As long as the diagnosis “schizophrenia” represents a psychiatric convention, the psychiatrist is dependent on correctly detecting, interpreting and classifying psychopathological phenomena. With this type of diagnostic procedure, individualistic diagnoses can only be avoided if there exists a hierarchical system which has found wide acceptance, albeit as a convention.

The concepts of Bleuler [1, 2] and Schneider [15] have found such wide acceptance: two systems which are almost congruent in clinical practice as shown by Bleuler et al. [3]. Schneider’s diagnostic system has however been more attractive, mainly because of the first rank symptoms, to the operational research which has been increasingly favoured in the past few years. Their non-theoretical pragmatic character, their adequate frequency, their ease of detection, and their high discriminating power for schizophrenia as demonstrated by polyethnic studies have contributed to this attractiveness [8–13, 16, 17]. It is however often overlooked that Schneider himself formulated his ideas very cautiously and modestly: where

first rank symptoms “are definitely present and no bodily disease can be found, we speak clinically in all humility of schizophrenia” ([15] p. 135), but “we are often compelled to base the diagnosis of schizophrenia on second rank symptoms, or even exceptionally on mere expression symptoms if these are sufficiently clear” ([15] p. 136). This type of cautious formulation, however, leaves the door of diagnostic uncertainty open. When is a psychiatrist who diagnoses according to Schneider uncertain whether schizophrenia is present or not? Are the reasons for his uncertainty similar to those of the psychiatrist diagnosing according to Bleuler, as described by Ernst [4], among others? The Cologne University Psychiatric Hospital, diagnosing strictly in accordance with Schneider, diagnosed “suspected schizophrenia” 527 times over a period of 30 years (1950–1979). We asked ourselves: what made the psychiatrist diagnose suspected schizophrenia yet nevertheless stop short of a definite diagnosis of schizophrenia? We are also investigating the subsequent mental and social development of these patients over the course of time. In order to answer this last specific question, we are already carrying out follow-up investigations.

2. Material and Methods

The case material of the Cologne University Psychiatric Hospital is highly suitable for answering the above questions. For a period of 30 years the hospital was directed by a pupil of Schneider, Prof. Werner Scheid, who controlled the diagnoses, together with his senior assistants, who likewise diagnosed according to Schneider’s concept and of whom two even underwent part of their training under Schneider himself. The findings were usually very extensively documented, so that there is no difficulty in evaluating 190 items per patient. For the present communication, we have used the records of the following patients:

- Patients hospitalised for the first time in their lives with the discharge diagnosis “schizophrenia” ($n = 1208$), and
- Patients with the discharge diagnosis “suspected schizophrenia”, hereafter also referred to as “schizophrenia suspecta” ($n = 358$).

Between 1950 and 1979 the discharge diagnosis “schizophrenia” was made for 3874 in-patients and the discharge diagnosis “schizophrenia suspecta” for 527 in-patients. All non-German speaking patients were excluded from this study. The “schizophrenia” group comprised only those patients who were being treated for the first time ever in their lives as in-patients for schizophrenia. This gave us records of 1208 patients available at the time of our evaluation.

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We excluded from the "schizophrenia suspecta" group not only the non-German speaking patients but also those patients for whom the diagnosis "suspected schizophrenia" was based not on genuine diagnostic uncertainty but on the avoidance, for social reasons, of "officially" pronouncing the diagnosis "schizophrenia" although the case records permit no doubt that the diagnosis "schizophrenia" was certain.

After applying the above-mentioned exclusion criteria, we had available the case records of 358 patients with the diagnosis "suspected schizophrenia". The data were collected by means of a standard protocol, designed by ourselves and comprising 190 items. The protocol was standardised against a pilot study using case records of 400 patients with "schizophrenia" or "suspected schizophrenia". The evaluation protocol comprised the following sections: general information, history, social factors, heredity, life events, psychopathological symptoms, somatic symptoms, treatment, and outcome. The list of psychopathological symptoms was based on the AMDP system. The data were recorded and compared using a computer system, using SPSS-based programmes (Statistical Package for the Social Sciences).

3. Results

3.1 The Influence of the Length of Observation

As can be seen from Fig. 1, there is no difference between the two groups in respect of the duration of observation. This removes one obvious suspicion, namely that the psychiatrist was not able to make the diagnosis "schizophrenia" because of inadequate observation time. It might be that this factor played a role in some individual patients; overall, however, the length of observation time played scarcely any role in the degree of certainty of diagnosing "schizophrenia".

3.2 The Influence of the Psychopathological Symptoms

3.2.1 The Influence of Psychotic Productivity in General. As regards psychotic productivity, we divided our material into two groups, one productive and one non-productive. The productive group comprised those patients who presented delusions and/or hallucinations and/or disorders of experience of the self during the period of observation. (The disorders of experience of the self were separated from the delusions and hallucinations on account of their special psychopathological nature, although they are partly delusional and partly hallucinatory experiences.)

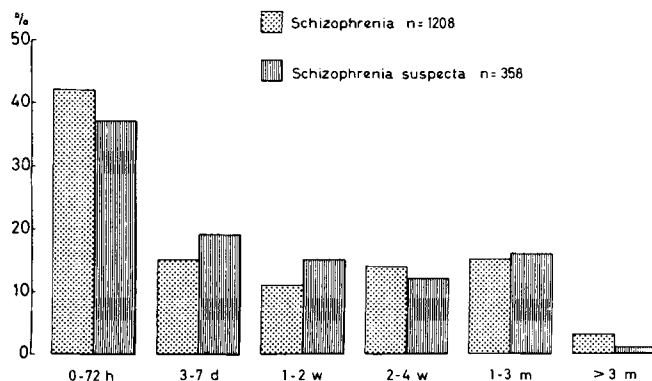


Fig. 1. Observation time ($\chi^2 = 10.63$; $df = 5$; N.S.)

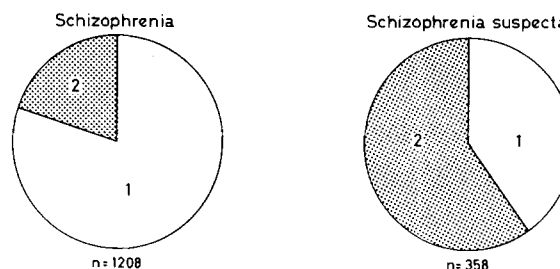


Fig. 2. Frequency of psychotic productive symptoms ($\chi^2 = 211.9$; $df = 1$; $P < 0.01$), 1, productive; 2, non-productive

The non-productive group comprised those patients who presented neither delusions, hallucinations nor disorders of experience of the self during the period of observation.

As Fig. 2 shows, the productive form is found significantly more frequently in the "schizophrenia" group. Conversely, the non-productive form is significantly more frequently found in the "schizophrenia suspecta" group.

All forms of productive psychotic symptoms (delusions, hallucinations, and disorders of experience of the self) are found significantly more frequently in the "schizophrenia" group (Table 1).

Considering various different combinations of psychotic productivity produces the following results (Table 2). The occurrence of delusional phenomena alone (paranoid), i.e. delusions only, with no hallucinations and no disorders of experience of the self, is more frequent in the "schizophrenia" group. The occurrence of hallucinations alone (hallucinatory), i.e. hallucinations only, with no delusions or disorders of experience of the self, does not discriminate between the two groups. The combination of delusions and hallucinations (paranoid hallucinatory), however, shows high discrimination for the "schizophrenia" group in our material. This is also, and particularly, true of the combination of delusions, hallucinations and disorders of experience of the self.

3.2.2 The Influence of Schneider's First Rank Symptoms. While first rank symptoms were found in 567 patients (47%) of the "schizophrenia" group [11], they were found in only 58 patients (16%) of the "schizophrenia suspecta" group ($\chi^2 = 108.8$, $df = 1$, $P < 0.01$). The occurrence of schizophrenic first rank symptoms in the "schizophrenia suspecta" group is thus inconsistent with Schneider's concept.

We have shown elsewhere [9, 12, 13] that in "schizophrenia suspecta" the first rank symptoms always occur in conjunction with several factors which reduce their pathognomonic validity. Such factors are: transient occurrence of individual first rank symptoms, and occurrence in combination with definite bodily disease or with low intellectual capacity.

3.2.3 The Influence of Non-productive Symptoms. There is no significant difference between the two groups in respect of the frequency of disorders of affect, of behaviour or of drive (Table 1). The frequency of the various formal disorders of thought shows no significant difference between the two groups, with one exception, namely that incoherence is found significantly more frequently in the "schizophrenia" group.

If, however, we consider incoherence occurring in combination with other symptoms, we find that incoherence is only a discriminating indicator for schizophrenia if accompanied by psychotic productivity: where it is not so accompanied, then

Table 1. Main psychopathological symptoms

	Schizophrenia (<i>n</i> = 1208)		Schizophrenia suspecta (<i>n</i> = 358)		Significance (χ^2 -test)
Delusions	888	74%	121	34%	$P < 0.01$
Hallucinations	574	48%	60	17%	$P < 0.01$
Disturbances of experience of the self	281	23%	24	7%	$P < 0.01$
Affective disturbances	1008	83%	295	82%	N.S.
Disorders of behaviour or of drive	757	63%	241	67%	N.S.
Incoherence	478	40%	98	27%	$P < 0.01$
Other formal thought disturbances	186	15%	66	18%	N.S.

Table 2. Combinations of psychotic productive symptoms

	Schizophrenia (<i>n</i> = 1208)		Schizophrenia suspecta (<i>n</i> = 358)		Significance (χ^2 -test)
Paranoid	324	27%	75	21%	$P < 0.05$
Hallucinatory	63	5%	22	6%	N.S.
Paranoid-hallucinatory	310	26%	28	8%	$P < 0.01$
Paranoid-hallucinatory + disturbances of experience of the self	184	15%	8	2%	$P < 0.01$

incoherence is significantly more frequent in "schizophrenia suspecta".

Incoherence alone, i.e. not accompanied by psychotic productivity, is, in our research material, a factor contributing to uncertainty of the diagnosis, as its significantly more frequent occurrence in the "schizophrenia suspecta" group shows ("schizophrenia" 7%, "schizophrenia suspecta" 12%) ($\chi^2 = 8.74$, $df = 1$, $P < 0.01$).

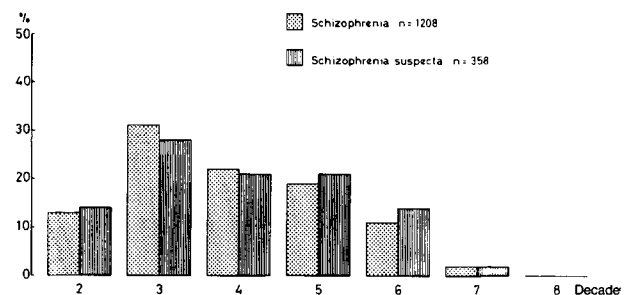
This observation applies to all formal disorders of thought, that is to say formal disorders of thought without psychotic productivity are, in our research material, a predestinating factor for diagnostic uncertainty, as the following results make clear. The non-productive form *with* formal disorders of thought is found in 128 patients (11%) with the diagnosis "schizophrenia" as against in 85 patients (24%) with suspected schizophrenia. Affective disorders alone, i.e. with no psychotic productivity, no disorders of drive and no formal disorders of thought, were likewise significantly more frequently recorded for the "schizophrenia suspecta" group (9%) than for the "schizophrenia" group (2%) ($\chi^2 = 45.6$, $df = 1$, $P < 0.01$). The same is true of disorders of drive and behaviour found alone, although the overall frequency of this combination was low ("schizophrenia" 2%, "schizophrenia suspecta" 5%) ($\chi^2 = 9.73$, $df = 1$, $P < 0.01$).

3.3 The Influence of Age

As Fig. 3 shows, the patient's age has no influence on the differential diagnostic uncertainty, in agreement with Schneider's concept. In both groups the peak frequency is below the age of 45.

3.4 The Influence of the Acuteness of the Symptoms

Table 3 shows clearly that an acute outbreak of the symptoms and a consequent acute change of the patient's lifestyle is an indicator for schizophrenia in our material. By contrast, discrete symptoms occurring gradually, over a period of many years, and primarily in the form of non-productive phenomena, made it more difficult to diagnose "schizophrenia".

**Fig. 3.** Age ($\chi^2 = 4.68$; $df = 6$; N.S.)

3.5 The Influence of Somatic Findings

The existence of definite bodily disease excludes—not only in Schneider's concept—the diagnosis "schizophrenia". However, the diagnosis "schizophrenia" was made for 62 patients (5%) of the Cologne material investigated, despite the existence of definite bodily disease. An important fact, despite these exceptions, is that the frequency of somatic findings (in particular, neurological findings) is significantly greater in the "schizophrenia suspecta" group (52 patients, 15%) than in the "schizophrenia" group (62 patients, 5%) ($\chi^2 = 36.1$, $df = 1$, $P < 0.01$).

It seems to us that a reason for not diagnosing an organic psychosis in such cases despite the existence of definite bodily disease is the fact that, in these cases, there are no psychopathological symptoms which are accepted as being characteristically "organic".

3.6 The Influence of Low Intellectual Capacity

The transposition of experiences and the assessment of expression symptoms is more difficult if the patient is of low intellectual capacity. The importance of this fact as regards diagnostic uncertainty is reflected in our findings: these show that the frequency of low intellectual capacity in the "schizophrenia suspecta" group (9%) is three times greater than that in the "schizophrenia" group (3%) ($\chi^2 = 22.6$, $df = 1$, $P < 0.01$).

Table 3. Acuteness of symptoms

Outbreak of symptoms before hospitalisation	Schizophrenia (n = 1208)		Schizophrenia suspecta (n = 358)		Significance (χ^2 -test)
Less than 1 month	405	34%	65	18%	$P < 0.01$
1-3 months	155	13%	32	9%	$P < 0.05$
3-6 months	109	9%	28	8%	N.S.
6-12 months	136	11%	38	11%	N.S.
1-2 years	129	11%	45	13%	N.S.
2-5 years	117	10%	40	11%	N.S.
5-10 years	57	5%	38	11%	$P < 0.01$
More than 10 years	63	5%	45	13%	$P < 0.01$
Missing information	37	3%	27	8%	—

4. Conclusions and Discussion

Ernst, a follower of Bleuler's concept, examined the question of whether one is permitted to assume schizophrenia when it is not yet present but it is suspected that it will come [4]. He answered this question with "no" after making follow-up investigations of patients with suspected schizophrenia diagnosed according to Bleuler's guidelines. He found that one of the most important reasons for the occurrence of an unfounded diagnosis of suspected schizophrenia is that the "fundamental" symptoms according to Bleuler have been wrongly assessed. This is a plausible explanation when one thinks of the wide, non-specific nature of Bleuler's "fundamental" symptoms.

Our investigations show that main factors for expressing a diagnosis of suspected schizophrenia when using Schneider's diagnostic criteria are likewise intrasympptomatological factors (i.e. the type, structure and constellation of symptoms), whereby the non-committal character of the "expression symptoms in the wider sense" (Schneider, i.e. disorders of thought, of affect and of behaviour) for diagnostic purposes is of particular importance here.

Extrasymptomatological factors, such as age, period of observation and social factors, play scarcely any role. The 30 years' experience in Cologne with Schneider's diagnostic guidelines shows that one of the most important symptomatological factors causing uncertainty of the diagnosis is the presence of *only* so-called non-productive psychotic phenomena, such as formal disorders of thought, affective disorders and disorders of behaviour or drive, with *no* accompanying psychotic productivity. The uncharacteristic and non-specific nature of all these disorders has contributed to a diagnostic "grey area", in which the diagnosis "suspected schizophrenia" is expressed.

Psychotic productivity in the form of delusions or hallucinations alone is not always sufficient to establish a suspicion of schizophrenia as certain, although it can make a large contribution of this certainty. In the first case, the psychiatrist considers the possibility of a "paranoid reaction" or "paranoid development", and, in the second case, the possibility of an "organic hallucinosis with no detectable organic cause", and therefore expresses only a suspicion of schizophrenia. Psychotic productivity in the form of a combination of paranoid and hallucinatory symptoms makes it easier to diagnose schizophrenia, particularly if there are also disorders of experience of the self.

It appears at first sight surprising that the first rank symptoms, despite their high pathognomonic validity [8-13, 16,

17], are also sometimes unable to establish the diagnosis "schizophrenia". In these cases their pathognomonic validity is reduced by the transient occurrence of individual first rank symptoms, or by their occurrence in conjunction with low intellectual capacity or with definite somatic findings [12, 13].

Acute occurrence of psychopathological symptoms, especially of productive psychotic phenomena, influences the diagnosing psychiatrist in favour of diagnosing "schizophrenia". *Gradual occurrence of discrete symptoms over a long period*, especially of non-productive symptoms, allows schizophrenia to be suspected, but not to be confirmed.

Our evaluation of the Cologne material shows that beyond the relatively (but only relatively) secure bounds of the first rank symptoms [12, 13] and the overall psychotic productivity, a diagnostic "grey area" can result if the psychiatrist has to rely solely on formal disorders of thought and disorders of behaviour, affect and drive. It also shows the necessity of detecting the "characteristic within the uncharacteristic" [5] features of such symptoms by refining our exploratory techniques.

The question of whether these non-productive psychotic symptoms alone already represent schizophrenia or precursors or "prodromes" of it [5, 6, 7], or whether they have anything to do with a psychosis at all, is the purpose of our follow-up study which is still in progress.

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