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Functional Psychoses and Social Status

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The relationship between mental disorder and social background has for many years attracted the interest of epidemiologically oriented psychiatrists. Investigations in several countries have demonstrated that patients admitted to mental hospitals are recruited to a large degree from the lower social strata of society, but there is still a vast difference of opinion in so far as interpretations of these findings are concerned.

Kallmann (1938) has shown that families with several cases of schizophrenia manifest a progressive downward drift in social status.

Ödegård (1956) has made a study of the incidence of mental disorders in various occupations, based upon first admissions of male patients to Norwegian mental hospitals from 1926–50. The highest admission rates were generally found in occupations with low standards of practical and theoretical training and low social prestige, whereas income-level was less decisive. The statistical findings are best explained, according to the author, as the results of social selection, determined by pre-psychotic personality or early and undiagnosed symptoms. This mechanism of selection is most evident for schizophrenia and for psychoses with epilepsy and mental deficiency.

Goldberg and Morrison (1963), in a survey of a national sample of males aged 25–34 on their first admission to a mental hospital for schizophrenia, showed the usual excess of patients in the lowest social class; but the social class distribution of the fathers at the time of the patient's birth was very similar to that of the population as a whole. A clinical study of a representative series of consecutive admissions of male schizophrenics aged 15–30 living in a socially mixed area in outer London, confirms these findings. It shows decline in occupational status from both father to son and in the patient's own history.

The authors assume that the discrepancies in social performance between father and son could mainly be attributed to the disease processes.

The social drift appears to affect the highest and lowest social classes most severely. The authors state that their findings suggest that gross socio-economic deprivation is unlikely to be of major aetiological significance in schizophrenia.

Noreik and Ödegård (1966) have studied the incidence of psychosis in Norwegians with a background of higher education. The study covered almost 13,000 persons who had graduated from secondary school between the years 1916–25, followed to the end of 1961. Among the pertinent findings was the demonstration that admission rates were generally high for those whose occupational status was relatively low in relation to educational level, farmers, fishermen, labourers and seamen.

Several investigators have raised doubt with regard to the hypothesis of social selection as an adequate explanation for the over-representation of schizophrenia in the lower strata of the population.

Langner and Michael (1963), in their New York study, found a linear correlation between stress and mental disturbance. The authors found an expected relationship between social class and stress, as sources of stress increased in the lower strata of the population, and they suggest that the childhood experiences and especially the children's relationship with their parents have prepared the middle and higher classes better than the lower class people for dealing with stress.

The aim of this study has been to find answers to the following questions:

1. What was the family background of our patients, i.e. the social class of their fathers?

2. Is there any difference between the social status of the patients and that of their fathers at

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the time of first admission to mental hospital?

3. Is there any difference in the social status of patients between admission and follow-up?

4. Is there any relation between the educational level of the patients and their fathers' social status?

Material and Methods

The present study is based upon case histories of 186 males suffering from functional psychoses. The patients were admitted to Gaustad Hospital, Oslo, for the first time during the years 1955–58, and all have passed through a follow-up study at least five years after primary admission.

The following were excluded from the study: patients born and brought up outside of Scandinavia, those few who had been given the diagnosis "psychosis *e genere incerto*", manic-depressive psychosis and all organic psychoses. Otherwise all consecutive admissions were included.

Table I
Distribution of the Functional Psychoses According to Diagnoses

Diagnosis	Number of Patients
Schizophrenia*	85
Reactive psychoses† ..	101
Total	186

* We use the diagnosis schizophrenia according to the criteria set forth by Langfeldt.

† Reactive psychoses are supposed to consist of psychoses of depressive, paranoid or hysterical form in more or less psychopathic individuals.

A pertinent question is whether the patients admitted to Gaustad Hospital might constitute a selected material. However, the only principle of selection we have found is geographical. The patients come from small towns and rural areas in southern Norway and to some extent from the Oslo vicinity.

The average age of the schizophrenics at the time of first admission was 33 years, and for the reactive psychoses 36 years. It is reasonable to suppose that most of the patients had completed their education at the time of their first admission, and most of them had probably come as far as possible for them within their individual occupations.

In order to find a quantitative expression of the social status of patients and fathers, we have used their occupations as an index. Level of income and standard of education could perhaps have been used with the same degree of success, but information in the case histories was often too scanty.

We have classified the occupations into three broad groups as follows:*

High social status—Professionals, higher ranking civil servants, business men;

Middle social status—Technicians, artisans, skilled labourers, civil servants, ships' officers, farmers and fishermen;

Low social status—Unskilled labourers, day-jobbers, etc.

By means of the Norwegian census we have found the normal distribution of occupational status in the population. As a comparable group for the fathers we chose the census of 1946 regarding the occupational distribution among married men aged 41–70.

The occupations of the patients were registered at the time of first admission to the hospital and compared with the average occupational distribution for all men according to the censuses of 1950 and 1960.

* The classification is based upon the categories used in the Norwegian census.

Table II
Age of Patients at the Time of First Admission to Gaustad Hospital

	<25	25–29	30–39	40 and above	All
Schizophrenia.. ..	16	22	30	17	85
Reactive psychoses ..	9	16	24	52	101
	25	38	54	69	186

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TABLE III

Expected and Observed Social Status Distribution of Fathers and Patients

Social Status	Fathers			Patients		
	No.	Obs.	Expect.	No.	Obs.	Expect.
		%	%		%	%
High	35	18·8	11·4	22	11·9	9·6
Middle	83	44·6	60·9	62	33·3	53·9
Low	68	36·6	27·7	102	54·8	36·5
Sum	186	100	100	186	100	100

TABLE IV

Social Status Distribution of the Schizophrenics at the Time of First Admission and at the Follow-up Study, as Compared to Their Fathers. Absolute Number and Percental Distribution

Social Status	Fathers			Pat. at 1. adm.			Pat. at follow-up		
	No.	Obs.	Exp.	No.	Obs.	Exp.	No.	Obs.	Exp.
		%	%		%	%		%	%
High	16	18·8	11·4	11	12·9	9·6	8	9·4	9·6
Middle	41	48·2	60·9	28	32·9	53·9	16	18·8	53·9
Low	28	33·0	27·7	46	54·2	36·5	61	71·8	36·5
Sum	85	100	100	85	100	100	85	100	100

According to the census data regarding expected social class distribution when fathers and sons are compared, there will naturally appear a certain difference. The fathers show a higher status distribution because their occupations are registered at a later stage in their lives and also because they are married.

Our study shows an over-representation of both high and low social status as compared to the expected values. These findings apply to both fathers and patients. The excess values for observed low status seem more conspicuous, and it might be justifiable to infer that the patients to some extent are recruited from a background of poorer social standards than that of the average population. To delimit the importance of this factor in relation to others as far as aetiology is concerned has not been possible in this study.

Statistical Treatment of Tables IV and V

A fourfold chi-squared tabulation of low occupation (social status) versus high and middle has been applied to compute

(*a*) patients' occupational level at first admission in relation to the level of their fathers:

Schizophrenics	Reactive psychotics
χ^2 7·62	χ^2 5·0
P<0·001	P<0·05

The difference in level is statistically significant, but less so for the reactive psychotics than for the schizophrenics.

(*b*) patients' occupational level at follow-up in relation to their level at first admission.

Schizophrenics	Reactive psychotics
χ^2 7·30	χ^2 1·0
P<0·01	P<0·50: not significant

We have tested our findings as far as the occupational level of the patients at first admission in relation to the distribution of expected occupational levels is concerned.

Schizophrenics	Reactive psychotics
χ^2 11·43	χ^2 15·70
P<0·001	P<0·001

The differences in occupational level between our patients at the time of first admission and

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TABLE V

Social Status Distribution of the Reactive Psychotics at the Time of First Admission and at the Follow-up Study, as Compared to Their Fathers. Absolute Number and Percental Distribution

Social Status	Fathers			Pat. at 1. adm.			Pat. at follow-up		
	No.	Obs.	Exp.	No.	Obs.	Exp.	No.	Obs.	Exp.
		%	%		%	%		%	%
High	19	18·8	11·4	11	10·9	9·6	8	7·9	9·6
Middle	42	41·6	60·9	34	33·7	53·9	30	29·7	53·9
Low	40	39·6	27·7	56	55·4	36·5	63	62·4	36·5
	101	100	100	101	100	100	101	100	100

the expected distribution is statistically highly significant for both groups.

In Tables IV and V the social background and status distribution of the schizophrenics and the reactive psychotics have been separately treated. Our findings suggest that the schizophrenics' social background (fathers' occupational status) does not differ significantly from the expected in the average population, whereas the reactive psychotics seem to have a poorer background.

Difference in level of occupational status between fathers and expected.

schizophrenics	reactive psychotics
χ^2 1·19	χ^2 7·11
$p<0·20$	$p<0·01$

At the time of first admission to hospital the patients in both groups show a marked lowering in social status both in relation to their fathers and to the average population. This general decline in relation to their fathers cannot be solely explained as a result of difference in age or marital status, as the average ages of the patients at this time were rather high (33 and 36 years). Other factors seem to be of relevance, and it is reasonable to suggest that premorbid personality traits and perhaps undiagnosed symptoms and even minor psychotic episodes in some cases prior to the first admission may have hampered the occupational potentialities of the patients. The decline in status in relation to the expected findings gives support to this assumption.

The follow-up study reveals also a certain discrepancy between the schizophrenics and the reactive psychotics. Whereas the last category of patients show no further decline in social status when compared to the status at first admission the schizophrenics show a clear and almost continuous "down-drift". This decline among the schizophrenics is best explained as a result of the disease processes.

The educational background of the patients in relation to their fathers' social status has also been investigated. As basis of educational classification we have used the following criteria:

High educational status—University, technical college, military academy, higher technical commercial education.

Middle educational status—Education above elementary school level, both practical and theoretical.

Low educational status—Elementary school or less.

Table VI shows that 43·5 per cent. of the schizophrenics achieve a low education, i.e. only elementary school or even less, versus 61·4 per cent. of the reactive psychotics. This discrepancy seems to be in accordance with earlier findings regarding the poorer social background of the latter group. On the whole the schizophrenics have a favourable educational background in contrast with the reactive psychotics, who attain a somewhat lower basis than expected in relation to census data. It might be justified to assume that those strata of the population which achieve a rather poor education and consequently also a lower social status are more conducive to mental disorders. On the other hand selection processes may also be contributing factors inasmuch these factors might be present already at school-age. In any case, the

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TABLE VI

Educational Status of Patients in Relation to the Social Status of Their Parents

Father's social status	Educational status of pat. at 1. adm.	Schizophrenics	React. psychotics	Total
High (H)	H	8	6	14
	M	7	8	15
	L	1	5	6
Middle (M)	H	7	3	10
	M	18	12	30
	L	16	27	43
Low (L)	H	1	1	2
	M	7	9	16
	L	20	30	50
		85	101	186

question of nature or nurture in psychiatry is not one of either—or, but rather a complex interaction of both.

SUMMARY

The relationship between mental disorder and social background has been studied in a sample of 186 case histories of males suffering from functional psychoses.

The study reveals that the social background of the schizophrenics (their fathers' occupational status) did not differ significantly from the expected, according to census data on status distributions in the general population. The reactive psychotics on the other hand seem to be recruited from strata in society characterized by a significantly lower social background than could be expected.

Both schizophrenics and reactive psychotics show a social status decline when compared with fathers, as well as with the expectation for those of same age in the average population.

At the follow-up, the schizophrenics show a marked additional social "down-drift", in contrast with the reactive psychotics, who tend to remain almost on the same levels.

The educational basis of the schizophrenics seems favourable, whereas the reactive psychotics have a poorer background.

Social selection seems to explain some of the findings as premorbid personality and perhaps even undiagnosed symptoms of psychosis may have hampered or destroyed the educational and occupational potentialities of the patients. The poor background and low educational basis of the reactive psychotics may, however, in itself have been conducive to mental disorder. Probably both types of factors have been at work.

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