

Followup Treatment and Aftercare of Discharged Schizophrenic Patients

by Hans-Joachim Haase

Abstract

A program of sociotherapeutic and psychopharmacological treatment of discharged schizophrenic patients is described. An important aspect of the aftercare program is the use of volunteers recruited from the community. The volunteers participate in an educational program, in which they meet schizophrenic patients and receive information about the symptomatology and treatment of psychosis. As a result of this program, many lasting relationships are formed between patients and volunteers. In addition to such sociotherapeutic approaches, discharged patients also require a systematic program of pharmacotherapy. Particular emphasis is placed on the dosage and application intervals of long-term neuroleptics. A handwriting test developed by the author is used to establish the neuroleptic threshold—i.e., the minimum dose a patient needs to compensate psychotic agitation and yet to avoid the sedative major tranquilizer effect.

Since the introduction of the phenothiazines in the 1950s, it has been estimated that in the Federal Republic of Germany, for example, only one out of every two persons with a diagnosis of schizophrenia ever undergoes inpatient treatment in a psychiatric hospital. With the advent of effective pharmacotherapy, the number of schizophrenics released from inpatient care has increased dramatically, and long-term treatment in psychiatric hospitals has become much less common. At the same time, however, the number of readmissions to inpatient facilities has increased considerably, even trebled. Moreover, life-threatening postpsychotic depressive episodes have increased at least tenfold since the neuroleptic drugs came into widespread use.

We can estimate that out of half a million people in the Federal Republic of Germany who manifest schizophrenic symptoms, whether transiently or chronically, only 20,000 are in psychiatric hospitals for more than 5 years (i.e., long-term inpatients). This is only 3 to 4 percent of the rate of schizophrenia in the population. We also know that in underdeveloped countries outside Europe, which consist mainly of rural areas in which there is a maximum of 0.1 bed per 1,000 of the population, only 3 to 4 percent of schizophrenics undergo long-term treatment in psychiatric hospitals. The low rate of hospitalization may be viewed favorably so long as it is accompanied by a high degree of tolerance on the part of the sane. We know far too little, however, about the extent to which patients in underdeveloped countries benefit from more intact family structures, or alternatively, to what extent they are at a disadvantage because they lack access to treatment in modern medical facilities.

There is no doubt that humane, sociotherapeutic attention given to the individual schizophrenic patient can contribute decisively toward his making contact with the sane, toward his being integrated into society in some form or other, and toward his not becoming absorbed in a world of delusions.

Eugen Bleuler (1975) differentiated between the primary and secondary symptoms of schizophrenia. Unlike many later theorists, he considered such symptoms as delusions, hallucinations, and catatonic reactions to be secondary phenomena, resulting from the "core" disturbances of schizophrenia. In this view, the pri-

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mary or basic symptoms are a different sphere of feelings—the creation of a world apart, at an autistic distance from and yet in continuous confrontation with the human environment. Manfred Bleuler has suggested that there is no single symptom that is the basic and primary factor in making a schizophrenic, but rather an attitude, a tendency, a change of life style: autism. By feeling different, in the nature of “feeling past something” or, as the layman puts it, feeling “crazy,” the schizophrenic, according to Manfred Bleuler, is trying to be his real self. Because he cannot master his inner strangeness by taking his place as a conventional being among others, he instead creates a world to fit his conception and acts as if he is part of that world.

There is no evidence to indicate that treatment with neuroleptic drugs affects the primary symptoms of schizophrenia. To affect the core problems, one must employ socio-therapeutic measures or, more simply, give human attention in order to keep the schizophrenic patient from withdrawing still further within himself. One has to proceed individually in each case because the aim cannot be, for example, to make the patient join his family at all costs—even if they reject him. The aim should rather be to create new communities acting as families and to establish new human relationships. Along these lines, we began 4 or 5 years ago in our hospital to try to arrange individual “sponsorships” for 45 long-term inpatient schizophrenics who had not been visited or written to by their relations or friends for years. Individual “sponsors” were obtained by appealing to the public through the press, radio, and television. As a result of this campaign, people came to the hospital to get to know these chronic schizophrenics. In 50 per-

cent of the cases, the individual sponsorships still exist today. In a third of the cases, the sponsors not only visit the patients regularly in the hospital but also regularly invite them for short holidays in their homes. Such a creation of new relationships is all the more important, since family relations more often than not are hopelessly destroyed, especially in the case of long-term schizophrenics. Our colleague Mittelstaedt (1969), for instance, made home visits to the families of 123 chronically hospitalized schizophrenics. Two-thirds of these relatives were not prepared to take the patients back, only partly because of fear of the illness as such, but mostly because of financial difficulties, lack of room, etc.

We also know that, in the rare cases in which schizophrenics act aggressively, these aggressions are directed more often against family members and spouses than against strangers. According to studies made by Böker and Häfner (1973), there are 6 cases of dangerously aggressive acts per 10,000 schizophrenics, and this rate hardly exceeds that of the sane. Indeed, based on our clinical observations, this rate is even *lower* than that of the sane, so far as aggressive acts against strangers are concerned.

By *negative symptoms* (“Minus-symptomatik”), we mean the reduction of the psychoenergetic potential—also termed dynamic insufficiency, psychic defect, decrease of the intentional potential, etc. Negative symptoms signify the autistic withdrawal, the passive resignation, and above all, the diminishment of vitality and personality. The pre-morbid professional or occupational level is not maintained; human communications are reduced. The use of neuroleptic drugs to treat this aspect

of schizophrenia becomes less and less important; individual peer relationships become more and more important. It is no longer a question of maintaining the former professional level or keeping up former relationships but of making the best out of this new, this diminished psychoenergetic potential. We know that the majority of persons with negative symptoms continue to work and live outside psychiatric hospitals, even in the civilized world. The extent to which they lead a full life is certainly not a question of neuroleptic drugs; rather, it depends upon the open mindedness of the sane.

It is the *positive symptoms* (“Plus-symptomatik”) of schizophrenia that are most responsive to treatment with neuroleptic drugs. Positive symptoms are largely identical with Eugen Bleuler’s secondary symptoms and with Kurt Schneider’s first-rank symptoms. Positive symptoms are manifest in affective states characterized by extreme agitation or tension, as well as in psychotic experiences such as delusions and hallucinations. In the often desperate struggle patients make to keep psychosis at bay, there are few who defend themselves successfully, many who resort to flight. At best, they get used to the world of delusions and compromise with reality. When the borderline between the ego and the outside world fades away, when the threat in the form of delusional perceptions and acoustic hallucinations is projected onto the outside world, the patient becomes unsettled, helpless, anxious—at least in the case of an acute outbreak of psychosis. The treatment of positive symptoms is aimed at helping the patient to find reality. Any type of calming and anxiolysis is helpful—for instance, the reduction of the psychic agitation level, so that the patient in his ego-

weakness is not flooded anymore by delusional experience, and can find his way back to everyday life. In our opinion, therefore, the reduction of the psychophysical agitation level is the starting point in controlling positive symptoms; conversely, when the psychophysical agitation level is increased, positive symptoms can be triggered or intensified.

The psychophysical agitation level is reduced by the sedative major-tranquilizer effect of weakly potent neuroleptics, as well as by the "pure" neuroleptic effect (without sedation) achieved through blockade of the dopamine receptors. Positive symptoms are compensated most completely and quickly by "pure" neuroleptic effects when dosages are given above that of the neuroleptic threshold (see below).

Sociotherapy

Before we discuss further experiences with psychopharmacological therapy, let us turn to the importance of sociotherapy in the followup treatment and aftercare of discharged schizophrenic patients. Anyone who is hospitalized because of a schizophrenic psychosis is faced with the following situation after being discharged:

1. A discharged schizophrenic patient is considered weird and dangerous and is still frequently seen in a completely unrealistic light. The fear in the Christian West (in contrast to Islam, for example) of the psychic abnormal, especially the idea of the psychotic schizophrenic being possessed by the devil, which has had such tragic effects for centuries, still exists today.

2. In an industrialized urban society governed by wealth, consumption, and work, the withdrawn schizo-

phrenic, whose capacity for work is often impaired and who is therefore less able to compete, is at a special disadvantage. Moreover, in the aftercare of the schizophrenic, there is a serious lack of nonhospital psychiatrists, neurologists, social workers, and general practitioners who have sufficient knowledge of the treatment of schizophrenics and especially of the possibilities of rehabilitation, of psychotherapy and sociotherapy, and of the use of neuroleptics, especially of long-acting neuroleptics.

Connected to this lack of trained personnel could be the unnecessarily high number of schizophrenics who become completely unfit for work; the high number of psychotic relapses and consequent readmissions; a comparatively high number of suicides committed by schizophrenics; and, more generally, the fact that schizophrenics are, with particular frequency, becoming outsiders in society.

An improvement of this situation cannot be achieved merely by training a larger number of specialists or by creating more sheltered workshops, outpatient departments, and halfway houses. The active devotion of the sane members of society to the schizophrenic will be required if meaningful changes are to be made.

As described above, the project at our hospital to find individual "sponsors" demonstrated that it was possible to initiate new social relationships even for very sick long-term patients who could not possibly be discharged. Similar programs are being carried out elsewhere. In a survey (Haase 1977) carried out in the 165 psychiatric hospitals and departments of the Federal Republic of Germany, one-fourth (39) of these institutions reported the appointment of community volunteers (lay helpers). Moreover, 22 psychiatric clinics or

departments reported that 932 of their long-term patients (schizophrenics and oligophrenics) were being looked after by 719 "sponsors," while 18 psychiatric hospitals (seven of them large state hospitals) also reported the appointment of lay helpers for discharged patients.

Community Volunteer Program

Because the recruitment of community volunteers for the aftercare of schizophrenics is not carried out very systematically, the following model has been set up in the region around our hospital in the past 3 years:

Our hospital, with a catchment area of 1.2 million inhabitants and 1,250 beds, presently has 4,000 admissions a year. Before discharge, each patient¹ is asked whether he wishes to be visited by community volunteers or to participate in clubs for ex-patients that are led by volunteers.

At 6-week intervals, after appeals to the public through the press and, occasionally, radio and television, classes for community volunteers are held. At each class, four to six schizophrenic or depressed patients who wish to have contact with community volunteers are introduced to the group. In these Saturday morning sessions, which last 2 to 3 hours, the volunteers are informed in general about the symptoms and treatment of psychotic illnesses, and in particular about the individual problems and previous history of the patients they meet during the class.

The volunteers are told that, first of all, they have the task of treating the

¹The only exceptions are patients being transferred into foster homes or halfway houses, youths, neurological patients, and addicts, who are part of other programs.

discharged patients as fellow human beings. They are expected to establish regular contact with the patients and to alert professional staff if problems arise. For example, if the volunteers observe that the patient is having a psychotic relapse, or if they believe the patient is over- or undermedicated, they should consult with the patient's physician or with one of the hospital staff psychiatrists assigned to outpatient care.

At this writing, 24 classes for community volunteers have been held. On the average, 35 volunteers attended each session. A total of 407 persons attended at least one class, 251 were present at least twice, and 216 at least three times. A considerable number participated in up to 10 sessions, and thereby received more information about psychiatric illnesses than is taught to most medical students (see Haase 1978a, 1979b, 1978d).

To be formally appointed as a community worker, at first for a probationary period, a volunteer must take part in at least two classes and submit a certificate signed by his family doctor, parish priest, or mayor stating that the undersigned has no misgivings about the person concerned working with discharged patients. At present, 133 volunteers have fulfilled these conditions. Seventy percent are women, 30 percent men; 13 percent are under age 30, 15 percent over age 60. The women are mainly housewives or, less commonly, women in social professions. Most of the men are salaried employees and civil servants, as well as those with social professions. They receive no payment for their work with discharged patients and are rewarded only by the patients' gratitude and the satisfaction of helping.

The initial contact between a discharged patient who wishes a community volunteer to be assigned to

him and one of the volunteers is made by a nurse who is trained in social psychiatry and assigned full-time to that the volunteer selected be of the same sex as the patient, live nearby, and, as far as possible, have similar hobbies.

The 133 volunteers not only pay regular visits to the patients assigned to them but also have recently joined with us in founding clubs for ex-patients in seven different towns in our catchment area. They meet with the patients one evening a week at the clubs and organize social activities.

In 1977, 1,340 adult patients were asked before discharge if they wished to be assigned a community volunteer and to participate in a club for patients. Of these, 580 were schizophrenics (322 women, 258 men), 394 psychotic depressives, 92 patients with mixed psychoses, 162 with organic brain syndromes, and 97 patients with severe neurotic behavior problems.

On average, independent of the diagnosis, about every fifth patient wanted to be assigned to a community helper. The program was especially welcomed by depressive, elderly, widowed women, by neurotic women, and by married schizophrenic women under age 30. It is possible that the marriages of young schizophrenic women are particularly burdened by their illness so that they wished lay help more often than the unmarried schizophrenic women.

The male patients just as frequently wanted lay help as the women. As was true within the group of female patients, married male schizophrenics requested lay help more often than the average patient (every fourth male schizophrenic). Although, on the average, every fifth schizophrenic patient (whether male or female) requested lay help, every second to fourth married schizophrenic patient requested such help, especially schizo-

phrenic women under 30. On the other hand, only every sixth to seventh married patient from the other diagnostic groups wished to have lay help.

Three times as many patients preferred to be visited by an individual volunteer than to have contact with a patients' club. Comparatively few patients wished both.

If the number of patients from our catchment area who wished lay help or contact with a patients' club is extended to the Federal Republic of Germany as a whole, we can estimate that at least 5,000 schizophrenic patients who are discharged from German hospitals each year would like to have the kind of help provided by the community volunteer program.

The extent to which schizophrenic patients have expressed a need for more human contact should make psychiatrists reflect upon the extent to which psychosocial approaches can be employed (see, for example, the comprehensive review of Bister, 1976). Not only the involvement of the patients' families of origin should be considered here but, above all, that of the spouse (as suggested by the high number of married schizophrenics who requested assistance).

If society actively reaches out to the schizophrenic patient in this way, the patient will experience more human contact, and at the same time, the prejudice against the mentally ill will be diminished. If schizophrenics are less exposed to the danger of being outsiders in society, we may also be able to reduce their self-destructive tendencies, as well as the frequency of psychotic relapses and readmissions.

Our experience with the recruitment of community volunteers encourages us to urgently recommend comparable projects in countries with similar social structures.

Whether it is a case of more human

devotion by lay helpers or specialists, in every case, the following words of M. Bleuler (1971) should be a guide:

If we recognize in the schizophrenic a fellow-suffer and fighter, he remains one of us. But if we see in him another, whom degenerate ancestors or a degenerate brain has made unapproachable, inhuman, different, and strange, we will disavow him unquestioningly. But how good it is for the schizophrenic if we innerly remain close to him!

Maintenance Neuroleptic Therapy

The Neuroleptic Threshold. This is defined as the release of a fine-motor extrapyramidal hypokinesia, at first only discernible in the handwriting (it correlates biochemically with the blockade of the dopamine-receptors). (See figure 1.) The neuroleptic threshold dose is the minimum dose at which one can effectively compensate psychotically caused agitation while at the same time avoiding the sedative major-tranquilizer effect. By retaining this dose, one can reduce the danger of renewed psychotic "decompensation" (Haase 1954, 1977).

Neuroleptic Potency. We made chlorpromazine equal to 1 and defined as weakly potent all those neuroleptics whose neuroleptic threshold dosages were above that of chlorpromazine. The remaining neuroleptics were classified as having a moderately strong, strong, and very strong potency corresponding to the decrease of their threshold dosage. Only the more strongly potent neuroleptics produce the "pure" neuroleptic effect avoiding a sedative major-tranquilizer effect. They are considered as long-acting neuroleptics because they effectively block the dopamine receptors for

a long period of time as revealed by their indicator, the fine-motor extrapyramidal hypokinesia.

The "Pure" Neuroleptic Effect. This reduces the psychoenergetic level without producing the sedative major-tranquilizer effect. The patient maintains a clear consciousness and thereby the ability to speak and act normally.

The Neuroleptic-Therapeutic Range. This lies between the production of the fine-motor, extrapyramidal hypokinesia, discernible at first only in the handwriting, and the subjectively disturbing coarse-motor, extrapyramidal side effects such as dyskinetic reactions, akathisia, and parkinsonian symptoms. The optimal neuroleptic dose, with a "pure" neuroleptic effect, is usually above the neuroleptic threshold. By gradually lowering the dose or (in exceptional cases) by giving very high, particularly intravenous doses, the extrapyramidal symptoms can be reduced.

Antiparkinson drugs admittedly mask these coarse-motor, extrapyramidal symptoms, but they reduce the neuroleptic potency and, if prescribed as a permanent supplement, increase the danger of the appearance of extrapyramidal delayed hypokinesia.

With the aid of the handwriting test to adjust the dose of long-acting neuroleptics, it is possible that in about 10 percent of cases, antiparkinson drugs only need to be given on the first to the third day of treatment application and by no means as a permanent supplementary medication.

The Neuroleptic Disposition to the Neuroleptic Threshold. For each short-acting neuroleptic, there are 15 times as many interindividual differences in dosage, and for each long-acting neuroleptic, at least 10 times as

many to reach the neuroleptic threshold. This disposition is independent of weight, size, constitution, and sex of the patients (up to the age of 60).

The concepts described above were developed by applying short-term neuroleptics with the help of the handwriting test. Subsequently, we have treated 500 schizophrenics over a period of 4 years with the various long-acting neuroleptics in an outpatient department. The required dosages, intervals of application, and the course of the illness were examined. Among our major findings were the following:

1. Over a 2-year period, the number of readmissions among schizophrenics who were unconditionally discharged was twice that of schizophrenics who continued systematic treatment with long-acting neuroleptics in our outpatient department (440 readmissions for the former vs. 150 readmissions for the latter). This result is all the more remarkable because the schizophrenics assigned to the outpatient department had more hospitalizations on the average than the control group (4.1 hospitalizations vs. 3.1 hospitalizations).

2. Schizophrenic outpatients whose therapy with long-acting neuroleptics was discontinued half a year after discharge were readmitted twice as often as outpatients whose pharmacotherapy was continued. Out of 47 schizophrenics whose treatment with long-acting neuroleptics was stopped after 6 months, 18 patients were readmitted within a few weeks, mostly with acute psychoses and positive symptoms (38.3 percent). Among the comparable number of patients who continued treatment, only eight patients had to be readmitted (15.1 percent) and even those did not show positive symptoms.

3. Among the fully remitted patients (defined as the absence of

Figure 1. Handwriting specimens before and during treatment of three cases who received daily dosages of trifluoperazine

Case 1. Female, age: 38, schizophrenic reaction, catatonic type

Jack and Jill went up the hill

Before treatment

Jack and Jill went up the hill

During drug treatment

Case 2. Male, age: 31, schizophrenic reaction, paranoid type

Jack and Jill went up the hill

Before treatment

Jack and Jill went up the hill

During treatment

Case 3. Male, age: 46, mental deficiency with psychotic reaction

To fetch a pail of water

Before treatment

To fetch a pail of water

During treatment

10 to 15 mg daily dosage of trifluoperazine (more than 300 mg chlorpromazine).

psychotic experience, full insight into the disease) who received systematic treatment with long-acting neuroleptics in our outpatient departments, only 3 percent were readmitted during an observation period of 20 months. Among the schizophrenics whose "productive symptomatology" continued even though the neuroleptic threshold dosage (as measured by the handwriting test) was maintained, 20 percent had to be readmitted during the same period despite identical treatment with long-acting neuroleptics.

4. Among schizophrenics whose followup treatment with long-acting neuroleptics was carried out by 25 nonhospital doctors, the rate of readmissions, unfortunately, was significantly higher than in our outpatient department. This suggests that precisely determined doses and systematically continued neuroleptic therapy are a necessity. Therefore, it is very important for therapists to see outpatients personally at followup examinations and to ensure that patients who fail to keep their appointments are contacted immediately.

5. In 10–20 percent of hospitalized schizophrenics whose psychoses had responded to neuroleptic treatment, depressive psychotic syndromes (often combined with suicidal or self-mutilating tendencies) appeared during the months after discharge.

The extent of the problem can be seen in the results of a survey we conducted of 1,500 nonhospital neurologists. There were 154 respondents, and every one of them reported the attempted suicide of a schizophrenic patient within the first 6 months after discharge; every other respondent reported the completed suicide of a schizophrenic patient during the same period!

In cases of postpsychotic depres-

sion, we recommend that neuroleptic treatment be continued in combination with (sedating) antidepressant medications. Hospitalization is indicated when marked suicidal tendencies are apparent.

The schizophrenic patients most prone to postpsychotic depression were those whose premorbid personalities were characterized by an exaggerated sense of duty with a high superego or ego ideal ("Über-Ich," "Ich-Ideal"). These personality features were particularly expressed in exaggerated orderliness and conscientiousness (Haase 1978).

Application Intervals

We concluded that there is no long-acting neuroleptic now available which remains effective for 4 weeks unless the patient is given an excessive dosage that usually results in disturbing extrapyramidal side effects. A 3-week interval results in a continuous overdosage in at least one-third of the cases. In our clinical experience, fluphenazine decanoate can be safely and effectively applied in all cases at 2-week intervals (and in two-thirds of cases, at 3-week intervals) in the following dosages: when the neuroleptic disposition of the patient is not known, 7.5 mg per injection; with a stronger disposition, 7.5 to 12.5 mg; with a moderate disposition, 12.5 to 17.5 mg; with a weak disposition, 17.5 to 25.0 mg. The following were also effective for 2–3 weeks: flupentixol decanoate in an average dosage of 20 mg per injection, and also perphenazine enanthate in an average dosage of 100 mg per injection.

Also effective at 1-week intervals were fluspirilene in an average dosage of 2–5 mg and the orally applied semap in an average dosage of 20 mg.

Underdosage

A series of experiments with short-acting neuroleptics demonstrated that chronically productive schizophrenics are significantly more likely to relapse at neuroleptic dosages below the neuroleptic threshold. An analogous result was found in a long-term study of long-acting neuroleptics.

In a recent experiment which we carried out over a 20-month period, we studied 66 chronically productive schizophrenic patients and a comparable number of schizophrenics with fully remitted psychoses. The long-acting neuroleptic used is, on the average, neuroleptically effective for 1 week (fluspirilene). When the intervals of application were increased to 2 weeks—so that in the second week, the dosage was *below* the neuroleptic threshold—chronically productive schizophrenics relapsed significantly more often than did the same patients when dosage was maintained *above* the neuroleptic threshold (i.e., at the 1-week application interval). With fully remitted schizophrenics, on the other hand, there was no significant increase in relapses at the 2-week application interval. These findings confirm the clinical observation that at the end of a long-acting neuroleptic application interval, some chronically productive schizophrenics show an increased incidence of positive symptoms (e.g., psychotic agitation and paranoid hallucinatory experiences).

Overmedication

The problem of overmedication is of special practical importance because at least half of the long-acting neuroleptics require a reduction of dosage at the second application if they are constantly to be given at a dosage above the neuroleptic threshold.

