

The Opus Project: Clinical treatment and research in Copenhagen, Denmark

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The OPUS project is a clinical treatment and research project. All the psychiatric wards in Hovedstadens Sygehusfællesskab (HS)(The joint hospitals of the Capital), as well as some in Århus Amt. I have chosen to focus on the section of the project concerned with HS, or more precisely OPUS/Vesterbro (OPUSV). I choose this focus because due to my conditions of employment I am already part of the projects control group. I will however, begin by describing the joint OPUS project and then go on to show how it is tackled in OPUSV.

The Aim of the Project:

- 1) To investigate whether or not it is possible to detect early schizophrenia and schizophrenia like psychosis by more co-operation with and more teaching of primary sector and local community.
- 2) To describe the prodromal phase as well as examine the duration of as yet untreated psychosis symptoms (VUP) in young patients with schizophrenia and schizophrenia like psychosis.
- 3) To describe whether or not VUP has an effect on the course of illness.
- 4) To describe whether or not an intensive psychological treatment would better the patient's course of illness and its outcome.

The History of the Project

Schizophrenia is a long-term mental disorder of which the cause is not yet fully explainable. However, Genetic disposition, congenital malformation and social conditions have been known to play a part. The diathesis stress model illustrates the correlation between the biological vulnerability and the pressure of outside conditions (Zubin and Spring, 1977). This model is the background for the suggestion of the increase in psychosocial intervention.

Schizophrenia runs through a number of stages: premorbid, prodromal, active psychosis and residual phases, as well as psychotic relapses. It has been established that there is a better course of illness for schizophrenics that have been treated with a combination of stress reductive psychosocial interventions and antipsychotic medicine. The additive effect of psychoeducational family therapy and social skills training has shown to be of the same size as the effect of neuroleptika on its own. That is when the effect is measured by the frequency of relapses (Bellack, 1985; Fallon et al. 1985; Leff et al. 1985; Tarrrier et al. 1989; Hogarty et al. 1991; McFarlane, 1995).

Examination of schizophrenic patients clearly shows that those experiencing short-term psychosis before the commencement of treatment are better off with respect to the duration of the illness and level of difficulty (Wyatt, 1991b). It is however not stated, whether these results can be attributed to the true effect of earlier treatment or if it can solely be applied to other prognostic propitious circumstances, for example, insight into the illness and the wish for co-operation in treatment.

The Connection between VUP and prognosis is the foundation for the theories that say that untreated psychosis is toxic for the brain (Wyatt, 1991a). It is therefore, necessary to investigate the effect of early discovery of patient's with schizophrenia and schizophrenia like psychosis, and to intensify the psychosocial intervention at an early stage of the illness.

Schizophrenia often results into persistent flaws in the functional level and economically schizophrenia is one of the most expensive illnesses in the world. For the patient's and for the patient's family the illness is combined with extensive social and psychological costs. The terms on which schizophrenics have to cope have probably been worsened over the last decades, at least for a percentage of the group. Thus, the suicidal rate, among schizophrenics, has doubled, in the last couple of decades (Middellevetidsudvalget. Sundhedsministeriet, 1994), the percentage of psychotics among the homeless has increased radically (Brandt, 1987) as has the number of mentally ill criminals (Kramp, 1993).

A great number of psychotic patients have, after the deinstitutionalisation of the psychiatric treatment system, been given more freedom of choice to make decisions for themselves, in and about their lives. For a number of these patients the choices connected to this freedom are too difficult to manage. The single elements of societies concern for the ills that were formerly gathered in one total institution have been placed in a number of institutions. It is in these institutions that mentally ill patients may find it difficult to make entitled demands effective in a socially acceptable way. The notion of the psychosis team has been developed to see that such patients are not left behind because of their inability to control this co-ordination task (Stein and Test, 1980; Holloway, 1991; Burns and Santos, 1995; Kane and McGlashan, 1995; Santos et al. 1995; Vendsborg, 1992).

In most of the models, a team of staff is allocated to the patient to make sure that there is continuity in the course of treatment. It is especially important in terms of assuring continuity between the hospitalisation and the socially based treatment as well as between the different parts of treatment plan. Emphasis is put on social skills training, control of anxiety, stress strains from the outside and on patients' enrolment in activities that can help them become integrated into society, activities, for example either sport or education that can help develop a sense of self-worth. It is also an important part of the treatment plan for the patient to experience realistic job possibilities and job offers.

Design

The project is a prospective investigation. In HS' admission area the investigations are contained in four designs, because there is both a quasi-experimental design and a randomised research area. The cases in the planned investigation are the population that meets the criteria for admission and who are willing to join. The early detection is done in parts of HS (Bisbebjerg Hospital's admission area) and there is strengthened randomised psychosocial effort, in all of HS' admission area.

Early detection is equally done in a part of Århus municipality (social district North), while the patient's from Århus municipality (North and West); Randers and Silkeborg are randomised for strengthened psychosocial effort.

The patient's will be examined in the same way when entering the project, as they will be after 1 and 2 years.

Criteria for Admission

- 1) The patient is aged 18 – 45 (In Århus 16 – 45) with national register address in Copenhagen or Frederiksberg municipality or Århus Amt.
- 2) The patient must meet the research criteria in ICD-10 for the diagnosis F2X: Schizophrenia, paranoia (acute and passing), and schizoaffective psychosis or unspecified non-organic psychosis.
- 3) If any former psychotic incidents have occurred, then they cannot have been treated with adequate medical treatment. The borderline adequate medical treatment is here defined as with neuroleptica (doses of Perfenazin/Zuclopenthixol over 16mg daily or adequate doses of other neuroleptica for more than 12 weeks).
- 4) The patient cannot be mentally retarded.
- 5) The patient cannot have known neurological or endocrine disruptions that can be due to the present psychotic symptoms.
- 6) The patient understands and speaks Danish enough to be examined and treated without the need of an interpreter.
- 7) The patient signs a paper agreeing to take part in the project.

The use of psychoactive drugs does not result in exclusion. The psychotic state must not be due to toxication or withdrawal syndrome.

Method

Early detection includes more information and teaching of relevant educational and treatment places. This is primarily with the local department, pedagogical psychological counselling and education for young people, and in this respect education advisors.

The teaching covers:

- 1) The aim of the project
- 2) The stages of schizophrenia
- 3) Early signs of the illness
- 4) Positive psychotic signs
- 5) The effect of psychosocial and pharmaceutical treatment

If the early signs of illness or positive signs of psychosis are there, the patient is recommended to the project, by the GP or by the Community Mental Health Centre.

Treatment

The strengthened treatment is based on five components.

- a) Continued contact with the psychosis team.
- b) Medical treatment.
- c) Psychoeducational treatment.
- d) Psychoeducational family treatment.
- e) Training in social skills and societal rehabilitation.

a) At the core of the intensive psychosis team's (also called the outreach psychosis team) treatment is the patients contact to the team and this involves an individual contact person, who through a continued and persistent effort, seeks to keep contact with the patient. Furthermore, to secure continuity between the various treatments arrangements and sectors as well as to give concrete support following the changing demands of the patient. If the patient is not hospitalised the multidisciplinary psychosis team takes care of every aspect of treatment phases. Each practitioner is responsible for a maximum of 10 patients and a minimum contact is a weekly meeting, lasting 30 minutes. The meeting is held in the patient's own home to support the patient's resources and train their societal skills in a neutral environment. In the critical stages one or several daily visits in the home might be discussed (Stein and Test, 1980). Supervision of the psychosis team, family treatment and individual talk courses will be secured. At one or more days of hospitalisation the responsibility for treatment is with the hospital ward, while the patient's case manager will take part in the treatment conferences, discharge discourse and other interviews in which the patient's future treatment is discussed and planned. If the patient is treated in the day centre at the Community Mental Health Centre then the patient will obtain the status of daytime patient and the responsibility for the treatment will be with the centre.

b) The medical treatment has the aim of an effective anti-psychotic result with as few side effects as possible. The treatment is designed individually. The guidelines are given by Dansk Psykiatrisk Selskab's promotion of the use of the more recent atypical neuroleptika for the first time psychosis and the knowledge that patients, in the early stages of the illness, do not need high doses. When the psychotic stage has been stable for at least 12 weeks reducing the doses should be contemplated, keeping close coordination with the clinical state. There is an aim to measure the serum level of neuroleptika with respect to the judging of compliance.

c) The family treatment begins as soon as the patient is admitted and has given consent to the contract of the family. Furthermore, the family has to show a willingness to co-operate in the project.

The family treatment consists of 3 parts:

1) A family session consists of a minimum of three meetings between the practitioner and the relatives without the patient participating. The scope of these meetings is to create an alliance within the family and to map former indications of the illness. If there is a crisis in the family, crises help is offered.

2) A teaching seminar for 4-6 families, who afterwards create a Multiple-Family group. The patients do not participate. The families are provided with lessons in psychosis, reasons, treatment and prognosis.

3) The Multiple-Family group is a closed group, with 4-6 families with participation of the patients and two practitioners. The group have their meetings lasting approximately 90 minutes, every second week, for 1½ year. The Multiple-Family model provides the possibilities for the developing of the families social network and help break the isolation, guilt and stigmatisation that are often connected to a psychotic

disease. The work form is based on structured problem solving, improving communication, hands on support for the outside influences and the increase of awareness of early signs of psychotic relapse. This is important for in the first years the most important issue is the prevention of the psychotic relapse. Later the focus is on the increase of the patient's level of function within society and to prepare for the termination of the treatment. The families are encouraged to keep contact with each other, independently of the group (Hogarty, 1986; Mari and Striener, 1994; Dixon and Lehman, 1995; McFarlane, 1995; Penn and Mueser, 1996 Schooler, 1997).

d) If the patient needs to develop societal skills appropriate for their age, they are offered specified training, either individually, in the home environment or by group, following the principals of cognitive behavioural therapy. Emphasis is put on the training of communicative skills, handling of the early signs of psychotic relapse and the medical treatment.

The social part of the treatment plan has the aim to strengthen the patient's ability to function and take part in society, and engage themselves, consistent with their abilities, in education, employment and/or activities.

Contact with psychosis team joint treatment lasts 1½ year after inclusion. During that time the patient and family are recommended to be aware of all the treatments major components: contact with the team, anti-psychotic medicine, family treatment and societal skill training and/or rehabilitation.

After 18 months the patient is transferred to the relevant Community Psychiatric/ Community Mental Health Centre.

Patients that are not admitted to the project can proceed with their treatment at the psychiatric ward or at the Community Mental Health/ Community Psychiatric Centre where they are registered and assigned. If during the course of treatment the patient wishes to stop participating and break contract with the team they can transfer instead to standard treatment. In this case the patient is then assigned to the relevant place of treatment.

Registration

Patient characteristics (clinical stage, societal relations, premorbid adjustment etc.) are evaluated by existing instruments and scales. This happens three times, at inclusion and after 1 or 2 years. Important measures of effects are evaluated every 3 months.

Evaluation and Research

PhD students are hired for the evaluation of the project. In co-operation with the project participants, the student will then undertake the necessary data collection. The Ph.D. students are, with a support group, responsible for the planning, completion and analysis of the results. Later on, the participants of the project can also use this data.

Organisation and Responsibility

The project is planned in co-operation with the psychiatric wards in HS and Århus Amt.

The people responsible for the joint project (styregruppe, control group) are: Ralf Hemmingsen and Merete Nordentoft from HS and representatives from the Margistraten's 3rd department in Copenhagen Municipal Council. Also, from Århus Amt there are Niels Reisby, Leif Gjørtz Christiansen and Per Jørgensen.

Furthermore, the research committee connected to the project consists of PhD students Mai-Britt Abel, Pia Jeppesen and Per Kassow.

Ethical Aspects

The project has been approved by the Registertilsynet and De videnskabetiske Komiteer. The last mentioned has allowed the project to include patients who are admitted and detained. The project is also trying to obtain permission to have communication and coordination with the criminal register, cause of death register at the Danish Institute of Clinical Epidemiology and the central register Psychiatry

Funding

The project is made economically possible with funds from the Ministry of Health, the Ministry of Social affairs and The Danish Scientific Health Research Committee.

Organisational Issues for Establishing the OPUS Project in HS

Among the approximately 560.00 inhabitants, in the admission area, there will be approximately 140 first time patients with a F2 diagnosis, during the 1st year. It is understood that each practitioner in the OPUS project can handle the outpatient treatment of 10-15 patients.

Two teams started in the HS admittance area, in the first two months of 1998, with the aim of securing the success of the OPUS project. The teams consist of employees in HS and Copenhagen Municipal Council's department of Societal affairs.

One team cover Bispebjerg Hospital and Frederiksberg Municipal Council. This team is based at the Community Mental Health Centre on Møntmestervej. The second team covers the rest of HS and is based at the Community Mental Health Centre, in Vesterbro.

The patients can be referred to OPUS from the psychiatric wards in HS, from the Community Mental Health Centres and from the GP, via the Community Mental Health centre. The two teams will establish a repeated visiting round, in which the goal is to ensure that departments and centres are aware of the project and answer questions which may facilitate a possible transfer of a patient. In each Community Mental Health Centre it should be the physician, who is responsible for the transfer. The project offers teaching to all the psychiatric wards in HS and offers to be present at staff meetings, especially in the psychiatric admission ward. Admitted patients will be evaluated by the project PhD students within 72 hours after the OPUS project has been contacted. At this first contact the interview is a diagnostic one (SCAN 2.0), to see if the patient can fulfil the necessary requirements. Evaluation of the relevancy for the transfer of patients to OPUS is done by personal contact. After the admission the randomisation treatment starts.

Every third month, from the time of admission and beyond the patient's clinical stage and treatment is evaluated and recorded. With the focus on establishing a psychopathological evaluation of patients in and out of the project and control group, a research group will be established consisting of the two PhD students with the project as well as the PhD students allocated to ward U7 at Sct. Hans Hospital. They will be responsible for evaluations every 3rd month and they will use the Schedule for Assessment of Negative Symptoms (SANS) and Schedule for Assessment of Positive Symptoms (SAPS) concerned with the estimation of time for remission and degree of remission. They will also document the kind of treatment the patient has received. The more thorough evaluation will be undertaken after 1 and 2 years, and will be carried out by the two allocated PhD students alone.

The National Schizophrenia project (DNS) started locally on 01.10.1997, with the aim of researching the effect of supportive analytical psychotherapy as supplement to the rest of the treatment. The data from OPUS is anonymous, according to usual standards.

Responsible for the local project is: Ralf Hemmingsen, Merete Nordentoft and Per Vendsborg.

Description of the OPUS project at DC-Vesterbro

The OPUS project on Vesterbro (OPUSV), started on April 1st 1998 and by December 23rd 1999, it had 35 patients and is capable of taking 60. The patients were continuously admitted to the project up on till December 31st 2000. The whole project is expected to last 5 years. The team consists of:

- 1 Psychiatrist
- 1 Mental Health Nurse
- 1 Psychologist
- 1 Social Advisor
- 1 Occupational Therapist

OPUSV admitted persons between 18 and 45, with first time psychotic outbreak or patients that had not yet been sufficiently treated. The patient could not have been treated with neuroleptics for more than 3 months and had to be in the schizophrenic spectre (including the patients with schizophrenia like symptoms).

If the patient was found adequate for the project and accepted it, there was a draw, in which the patient was either transferred to the project or to the standard treatment. If the patient's psychological condition warranted hospitalisation and the patient had accepted it, he or she was transferred to U7 at Sct. Hans Hospital (SHH). This ward is part of the OPUS project..

The Treatment consists of 4 components:

- Case Manager (CM)
- Multi-Family group
- Medical treatment
- Social Skills training (SFT)

The Personal Contact Practitioner (CM):

- Offers contact to the patient at least once a week.
- Tries, together with the patient, to find the root of problems and helps the patient to take control of the patients life.
- If the patient is admitted, the CM upholds the contact.

Multi-Family group:

- Seeks to create a quick contact to the patient's family.
- It starts with a ½ day lesson day for the patients and 1 whole day of lessons to the family.
- The first 3 sessions, with the family are related to the subject and without the patient's participation.
- For the next 1½-years the families meet, in a mixed group, every second week, for 90 minutes.
- In these sessions, the focus is on problem solving models and training in problem solving, as well as trying the solutions set up.

Medical Treatment:

- Anti psychotic medicine is preferred (Risperdal and Zyprexa).
- The smallest doses necessary are preferred.

Social Skills Training (SFT):

- Is offered by need.
- It will be evaluated whether or not the patient needs individual or group treatment.
- The group treatment lasts a year and shifts between 1 and 2 days a week.
- There are 6-8 patients in each group, and 2 trainers (therapists).
- Every SFT group treatment is divided into 5 modules. These modules contain teaching and training in:

Medicine. Symptom Control. Discourse Therapy. Conflict Solving. Problem Solving.

Methods

Homework. Role games and video recording. Group Dynamics.

All OPUSV team members are Case Managers and group therapists, either in a Multiple-Family group or/and Social Skills training (SFT). They are supervised on the SFT groups, by a specially trained psychologist (Irene Öesterich), once a month. In the Multiple-Family groups they are also supervised every second week by a psychiatrist. Furthermore, they are twice a year given lectures, by McFarlane and have two tutorial days a year, with Anne Fjeld (Norway).

Half way results

In December 1999, after the project had been running for nearly 2 years, it was the contention of OPUSV that patients provided with the OPUS project treatment continued maintained more clinical contact than patients who received the standard treatment.

In the first 2½ years more than 500 project participants were included and an even larger number have been interviewed. It means that 250 project participants are either receiving, or have received, treatment by the OPUS project either in Copenhagen or in Århus, half in each centre. Another 250 are receiving standard treatment.

Sample Data (concerning the first 500 project participants):

| | |
|-----------------------------|----------|
| Men/women | 61/39 % |
| Average age | 27 year |
| Average length of psychosis | 25 month |
| Misuse of alcohol or drugs | 26 % |
| Live on their own | 58 % |
| Work income | 13 % |

Results after the first year of treatment

The results of the scientific research investigation reported here are based on interviews of patients one year after they were included in the project. The results shows that the patients admitted to the OPUS-team treatment performed better in a number of areas compared to those patients admitted to the standard treatment. Those areas are:

1. Reduction of psychotic symptoms such as hallucinations and delusions. (Hallucinations - OPUS treatment 66%, standard treatment 56%. Delusions - OPUS treatment 71%, standard treatment 66%).
2. Reduction of negative symptoms such as low engagement and initiative. (Engagement -OPUS treatment 52%, standard treatment 27%. Initiative - OPUS treatment 46%, standard treatment 36%).
3. Compliance with psychosocial intervention and medical treatment. (Full compliance with medical treatment - OPUS treatment 60%, standard treatment 42%. Compliance with psychosocial intervention treatment - OPUS treatment 76%, standard treatment 45%).
4. Satisfaction with the treatment. (Very satisfied - OPUS treatment 32%, standard treatment 20%. Over all satisfaction - OPUS treatment 83%, standard treatment 74%).
5. Satisfaction amongst family and relatives. (60% of the families and relatives are satisfied with the OPUS treatment and 26% of the families and relatives are satisfied with the standard treatment).
6. Families and relatives engagement in the treatment measured by participation in follow up interviews. (OPUS treatment 59%, standard treatment 40 %)

The patients connected to the OPUS treatment had a significant reduction in hallucinations, delusions and negative symptoms such as low engagement and initiative than the patients connected to standard treatment. Those symptoms have a major impact on the patient's social competence. Regarding both OPUS treatment and standard treatment it showed that the families and relatives developed more knowledge about schizophrenia and subjectively they felt better. There was no significance between the two types of treatment but a larger group of family and relatives were involved in the OPUS treatment.