Implementation of Assertive outreach in Europe

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Bottle message found in a fax machine

Kenneth shows up in the community mental health centre and asks for a consultation. He asks if it is possible that a person can come to his apartment and help him with all the problems he is unable to handle. He has now moved out of the catchment area of the centre, and he never used the centre really systematically, and he should now be affiliated with Bispebjerg Hospital. He thinks he might have a doctor at the hospital, but he doesn’t know who it is. There are also social workers at the hospital. Copy of this case note should be faxed to Bispebjerg Hospital.

Doctor D
Phases in development of psychosis

- Treatment of first episode psychosis
- Shortening duration of untreated psychosis
- Intervention in ultra high risk groups

Birth to Teenage years
The UK - LEO Trial
(Lambeth Early Onset)

144 patients randomised

<table>
<thead>
<tr>
<th>Specialised care, N= 71</th>
<th>Standard care, N=73</th>
</tr>
</thead>
<tbody>
<tr>
<td>76% Contact with team</td>
<td>59% Contact with team</td>
</tr>
<tr>
<td>56 % Family intervention</td>
<td>33 % Family intervention</td>
</tr>
<tr>
<td>51 % Vocational intervention</td>
<td>23% Vocational intervention</td>
</tr>
<tr>
<td>55% Psychological intervention</td>
<td>27% Psychological intervention</td>
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</table>
The LEO Trial
(Lamberth Early Onset)

- Specialised care
  - 30% relapse
  - 33% readmission

- Standard care
  - 48% readmission
  - 51% readmission

Follow-up based on medical records after 18 months
The Danish OPUS Trial: A two-site randomised clinical trial of assertive specialised psychiatric treatment for first episode psychosis with five- and ten-year follow-up.
Specialised Assertive Intervention by OPUS team

• Assertive Community Treatment
  – (staff: patient ratio 1:10)

• Psychoeducational multi family groups

• Social skills training
The OPUS team
(8-12 staff members)

- Psychiatrist
- Psychiatric nurse
- Psychologist
- Social worker
- Occupational therapist
- Labour market/educational guide
Assertive Community Treatment

• Multidisciplinary team, caseload 1:10
• Team follows the patients during in – and outpatient treatment
• Flexible frequency of contact (weekly)
• Home visits
• Coordinate different institutions involved in the treatment of the patient. GP, somatic department, creditors and social services.
Can contact be established?
For instance how to respond to an unpleasant official letter
Or how to respond when neighbours complain about too much wornout furniture placed in the corridor
The OPUS Program for involving the family:

- Consequently involving families
- Workshops for relatives
- Single family sessions
- McFarlanes model for psychoeducational multi-family groups, every second week for 1½ year.
- On-going possibility for contact to the patient’s primary team member
The multi-family group

• 4 - 6 patients and their relatives

• The group meets for 1½ years

• The group meets every second week for 1½-hour meetings

• The method is problem solving
Common problems

• Medication side effects
• Waking up in the morning
• Going to school
• Moving away from home
• Maintaining relations
• Conversation
• Parents holiday
• Drug abuse
Most important sentence

“Thank you for being so engaged”
Inclusion Criteria

Age 18-45

A diagnosis (ICD10 research criteria) of F2: schizophrenia, schizotypal disorder, delusional disorder, acute psychosis, schizoaffective psychosis or unspecific non-organic psychosis

Patients have so far not had adequate treatment, defined as 12 weeks of anti-psychotic medication
Assessments

- SCAN (Schedule for Clinical Assessment in Neuropsychiatry)
- SAPS (Schedule for Assessment of Positive Symptoms)
- SANS (Schedule for Assessment of Negative Symptoms)
- GAF (function and symptoms)
- Demographic data including educational, employment and housing status
- Lancashire Quality of Life Scale
- Client Satisfaction Questionnaire
- Life Chart Schedule
- Cognitive test (BACS).
Registerbased follow-up

• Central Civil Register (CPR)
• Complete case records from all mental health services in the catchment areas
• Danish Psychiatric Central Case Register
• Cause of Death Register
• Statistic Denmark
• Database with all addresses for psychiatric nursing homes and staffed group homes
547 patients included and randomised

275 patients allocated to OPUS team treatment and treated for two years.

272 patients allocated to standard treatment

All patients were offered standard treatment for another three years

301 interview after five years (56%)

347 interview after ten years (70%)
Out-patient contacts and family intervention during the two-year intervention period

<table>
<thead>
<tr>
<th></th>
<th>OPUS</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out-patient contacts</td>
<td>77</td>
<td>27</td>
</tr>
<tr>
<td>Family groups</td>
<td>46 %</td>
<td>2 %</td>
</tr>
</tbody>
</table>
Satisfaction with treatment 2 y

Would you recommend this treatment to a friend?

<table>
<thead>
<tr>
<th>Response</th>
<th>OPUS team</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>I think so</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>I don't think so</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Definitely not</td>
<td>40</td>
<td>20</td>
</tr>
</tbody>
</table>
Drop-out
No out-patient treatment

Petersen et al, BMJ 2005
Psychotic dimension

Mean values

Bertelsen et al, Arch Gen Psych 2008
Negative dimension
Mean values

P<0.001 P<0.001 P=0.7 P=0.6

Bertelsen et al, Arch Gen Psych 2008
Substance abuse

Comorbid substance abuse (%)
Use of beddays during and after the OPUS-trial

Bertelsen et al, Arch Gen Psych 2008
Use of supported housing
Living in an institution

Days

First two years  Nex three years

OPUS
Standard
Conclusion:

- Psychotic and negative symptoms and substance abuse was significantly better after two years of intervention.
- Difference disappeared when patients in OPUS treatment were transferred to standard treatment after two years.
The Danish OPUS Trial

Conclusion:

• Significant more satisfaction with treatment in OPUS-team treated group after two-years
• Significantly better adherence in OPUS-team treated group
• Low dose strategy successfully implemented in OPUS (20 percent lower dosage antipsychotic medication)
The Danish OPUS Trial

Conclusion:

- Number of bed days was reduced with 22 percent in OPUS team group compared with standard treatment.
- Even after the end of the experimental period, patients in integrated treatment still had a lower use of bed days (17 percent lower).
- Fewer in the OPUS-treated group stayed in supported housing after five years.
- OPUS treatment was cheaper and better than standard treatment.

**OPUS is cheaper and better**

Mean saving: 39 bed days (20%) and 50 days in supported housing in the five year period.
Mean health care cost per patient in 1000 DDK within 2 years, 2009 prices, 3% discount rate

Mean costs per patient

- Primary health care
- Prescription Drugs
- Outpatient care, somatic
- Outpatient care, psych.
- Inpatient care, somatic
- Inpatient care, psych.

**OPUS 2 y**

- Total Cost: 450
- Primary Health Care: 200
- Prescription Drugs: 50
- Outpatient Care, Somatic: 100
- Outpatient Care, Psych.: 10
- Inpatient Care, Somatic: 20

**Control grp 2y**

- Total Cost: 450
- Primary Health Care: 200
- Prescription Drugs: 50
- Outpatient Care, Somatic: 100
- Outpatient Care, Psych.: 10
- Inpatient Care, Somatic: 20

**Legend**

- Black: Primary health care
- Gray: Prescription Drugs
- Light Purple: Outpatient care, somatic
- Light Blue: Outpatient care, psych.
- Dark Blue: Inpatient care, somatic
- Green: Inpatient care, psych.
Mean health care cost per patient in 1000 DDK within 5 years, 2009 prices, 3% discount rate
Mean total costs per patient in 1000 DDK within 5 years, 2009-prices, 3% discount rate

![Chart showing mean costs per patient for OPUS 5 years and Control group 5 years.](chart.png)

- **Supported living**
- **Health care costs**
- **Intervention cost**
Painkiller or driving licence

• Training effect - driving licence
  Psycho educative approach
  • Warning signs
  • Effect of medication
  • Symptom management
  • Training social skills

• Compensation - painkiller
  – Assertive approach
  – Supportive
The relatives

- Effect after one year specialised assertive treatment
Relatives stress-score, one-year Social Behaviour Assessment Schedule

OPUS vs ST: P = 0.04

Satisfaction with treatment, relatives, one-year follow-up

T-test
mean diff = 4.26 (2.7-5.9)
p<0.001
“Did the treatment help you to a better understanding of your mentally ill relative?”

![Bar chart showing the percentage of participants' responses to the question about the treatment's help in understanding their mentally ill relative. The chart compares the responses between OPUS and ST interventions, with categories ranging from 'Not at all' to 'Much better.'
The extension trial OPUS II
The critical period?

400 patients treated in OPUS in two years

200 patients continue OPUS treatment for another three years

200 patients are transferred to CMHC, ACT-teams or primary care

Project started 2009, 400 patients will be recruited before November 2011
Summary of evidence for EIS

• **Nice, Schizophrenia 2009:** Offer early intervention services to all people with first episode psychosis. Provide comprehensive range of treatments.

• **Cochrane, Early intervention in psychosis 2011:** Some support for specialised early intervention services, but further trials would be desirable, and there is a question of whether gains are maintained.

• **Port, Schizophrenia, 2009:** Current evidence does not support any evidence-based treatment recommendations at this time, primarily due to small numbers of studies for any given intervention and some inconsistencies among the findings.
16 OPUS/
Early intervention teams
Early Intervention Services in Europe
Background ACT

• Stein & Test’s original study (1980)
  ▪ Reduced days at hospital
  ▪ Improved clinical outcome, social functioning, likelihood of employment, adherence to antipsychotic medication, quality of life

• Australian study by (Hoult.et.al 1983)

• ACT began to gain influence on international service development

• Cochrane Review (Marshall & Lockwood1998)
Recent studies do not confirm the positive results of earlier studies

- ACT no longer reduces inpatient service-use

Metaregression Burns et al. 2007

- ACT has no demonstrated effect on hospitalisation
Why this difference?

- THE CONTROL GROUP?
  - A clinical successful outcome is determined just as much by the control group as by the intervention group
“End of road for treatment-as-usual studies?”
BMJ, Burns 2009
- ACT no longer seems to reduce inpatient service use
- ACT continues to improve engagement with services and user-satisfaction
- More studies in other European countries with modern mental health services are needed to illuminate whether the UK findings are representative
The needs of the group of reluctant patients with severe mental illness remain difficult to meet.

We need to find an effective approach for managing this group of patients for whom psychiatric care is essential.
Characteristics of Interventions

**Small Team (80-100 pts)**
- Team size 80-100 pts
- Case load of max. 10 patients
- Extended hours
- Assertive Community Treatment
- Home visits
- No drop out policy
- Team approach
- Frequent team meetings
- Team

**Large Team (300 pts)**
- Team size 300 pts
- Case load of 30 patients
- Office hours only
- Mainly office-based care
- Discharge if unable to make contact
- Case-management
- Weekly/monthly meetings
- Referral to outside agencies
MODEL
FIDELITY

CMHT
41%

ACT
91%

(IF-ACT) = 14-item Index of Fidelity to Assertive Community Treatment scale
RESULTS: TWO YEAR FOLLOW-UP

Number of patients lost to treatment

% of patients lost to treatment

P = 0.01
RESULTS: TWO YEAR FOLLOW-UP

Inpatient service-use

Patients in ACT = 22.5 fewer days in the hospital per year.

Avg. no. days of inpatient service-use per year

CONTROL

ACT

P = 0.009
RESULTS: TWO YEAR FOLLOW-UP

User satisfaction (CSQ)

Score on CSQ (0-25)

CONTROL

ACT

P ≤ 0.02
Study I: In Summary

- ACT was more effective than standard treatment in regards to:
  - Engaging patients
  - Reducing hospitalisation
  - Improving user satisfaction
  - Improving social functioning
  - Improving adherence to antipsychotic medication
Summary of Evidence for ACT

- Cochrane, ACT for those with severe mental disorder, 1998: Clearly favours ACT

- NICE, Schizophrenia, 2009: Not mentioned

- PORT, Schizophrenia 2009: Systems of care serving persons with schizophrenia should include a program of ACT. This intervention should be provided to individuals at risk for repeated hospitalizations or homelessness
Assertive Outreach in Europe?
Bed use outcomes in AO are not relevant

• Answer: It should not stand alone
AO does not offer lasting benefit in the first episode psychosis and therefore is not cost effective

• Answer: Not true
AO is associated with higher user satisfaction among patients and relatives
Answer: Yes definitely. Very important
Thank you for your attention