

Editorials

Community psychiatry in the Sub-Arctic. Experiences with the shift from hospital-based to community-based psychiatric services in Northern Norway

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INTRODUCTION

Northern Norway is a vast, elongated area, stretching from south of the polar circle to Cape North. It covers 113 000 square kilometres, 45% of the total area of Norway, and is in length about the same as all Italy. It is, however, inhabited by only 463 000 persons, 10% of the total population of Norway. This makes the area one of the most sparsely populated in Europe, with a mean of only 4 persons per square kilometre. There are essentially two reasons for people to be living so far north: One is the gulf stream coming from the Caribbean and going along the coastline, making the climate milder than in other places in the world at the same latitude. The other is the abundance of fish in the sea. Owing to lack of regulations, the fisheries have declined seriously during the last 20 years, but activities connected to the fishing-industry is still very much the backbone of the industry in the area. The population is Caucasian, but with a substantial element of people of indigenous Sami descent. The Sami people were traditionally nomads, living by the reindeer and following the animals' wandering after food during the seasons. There are still many Sami people that live by reindeer-keeping, but they are not nomads any more. Norway is a welfare-state with very little poverty, a generally high level of education, and modern, highly technological way of life has penetrated into every corner and every home, even in the most remote areas. Thus, the

main differences between northern Norway and the southern part is that the distances between municipality-centres are much greater in the northern part, the climate is rougher, and the level of education is somewhat lower.

Northern Norway is administratively divided into three counties, from south to north this is Nordland, Troms and Finnmark. The centre of Nordland is the city of Bodø, with some 42 000 inhabitants, in Troms the centre is Tromsø, with appr. 60 000 inhabitants, while in Finnmark the biggest city Alta has only about 17 000 inhabitants. Finnmark county alone is as big as Denmark, but has only 74 000 inhabitants. The highest concentration of the Sami people is in Finnmark. From the eastern part of Finnmark to the psychiatric hospital in Tromsø the distance is about 1000 kilometres.

DEINSTITUTIONALISATION IN NORWAY

In Norway, the psychiatric services for children and for adults are separated, and we will present only the development in the services for adults, 18 years and older. The private sector is very small in Norwegian psychiatry, with no private bed-units at all. Consequently, the description of the specialised services is quite comprehensive. It is also important that every citizen of Norway is registered as patient at a specific general practitioner (GP). These receive funding from the state, and treat a lot of psychiatric conditions.

Norway followed the international trend of deinstitutionalisation, in a slow and uncoordinated manner, from the mid 1970s (Lavik, 1987). From 1970 to 2002, the total number of beds available for adult psychiatric patients in Norway has been reduced by 57%, from 2.8 to 1.2 per 1000 inhabitants. In 1988 the government started to pay out-patient units for each new patient that entered

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treatment. This became a strong incentive to develop new out-patient clinics, and the number of consultations in out-patient units increased from zero in 1970 to 179/1000 inhabitants in 2002. In 1998 the government launched a new plan with rather large economic incentives to stimulate the development of the psychiatric services in local regions, with responsibility for specialist-services for geographically defined sectors. The core of these services is the so-called District Psychiatric Centre (DPC), usually consisting of an out-patient unit and a bed-unit. In many places, the bed-unit is an old psychiatric nursing-home for long-stay patients, which has been transformed into a unit for short-term treatment and rehabilitation. In other places, new bed-units were built in connection with local somatic hospitals. In addition, there are nurses employed by the municipalities who have special responsibility for the care of chronic psychiatric patients, and many new sheltered homes are being built for them.

This major reform has of course had considerable consequences for the treatment of persons with psychiatric disorders, yet this reform has not received much attention in research in Norway. Thus, we really know very little about the quality of the new service-system compared to the old one.

DEVELOPMENT OF PSYCHIATRIC SERVICES IN NORTHERN NORWAY

In 1902 the first psychiatric hospital in northern Norway, Rønvik Mental Hospital, was opened in Bodø, as the only unit offering in-patient specialised treatment for the whole region. In 1961 a new hospital, Åsgård Hospital, was opened some 500 kilometres further north, in Tromsø. Rønvik Hospital has the responsibility for Nordland county, and Åsgård Hospital for the counties of Troms and Finnmark. Both hospitals have in later years been administratively incorporated as psychiatric departments of the regional general hospitals in Bodø and Tromsø.

These two hospitals were among the first to apply social psychiatric thinking to develop sectorised and deinstitutionalised psychiatric services in Norway. This development started in the early 1970s (Haaland & Rafter, 1974), with the organisation of outreach teams from the hospitals that travelled regularly, co-operating with the GPs and the social services locally, and offering out-patient treatment. Also, the departments of the hospitals divided the catchment-areas between them, attaining a sectorised organisation, allowing for closer contact with local health authorities. This led to fewer admissions and

shorter stays at the hospitals. Consequently, fewer beds were needed, and Rønvik Hospital reduced the number of beds gradually from 500 in 1970 to 285 in 1982. In the same period, out-patient units were opened in several places in Nordland county. From 1987, there have been DPCs at all the 7 local somatic hospitals in the county.

The transition to community psychiatry in Troms and Finnmark counties took a wrong turn when Åsgård Hospital got into a crisis in 1980 because of lack of personal. The hospital had to close the whole department that served the sector of Finnmark. Thus the reduction in beds did not come as part of a planned process, and there were no out-patient units to replace the in-patient treatment. The number of beds was reduced by 50% in course of a few months, giving a beds-to-population ratio of 0.45/1000 inhabitants, while the mean ratio for Norway in the 1980s was 1.4/1000. It was not until 1990 that the number of personal in out-patient services in Troms and Finnmark reached the national average.

Table I gives an overview of the changes in the service-system in northern Norway. The shift to community psychiatry have been realised, with a 70% total reduction of beds, and a large increase in out-patient services and total manpower. The greatest change has been in the function of the psychiatric nursing-homes, which have been changed from permanent homes for chronic cases into active treatment units. Total number of beds in relation to the population is significantly lower than for the rest of Norway (chi-square 22.5, $p > 0.001$)

In northern Norway there are now 14 District Psychiatric Centres in addition to the two hospitals, the DPCs covering populations from 17 000 to 74 000. The resources and development of the different DPCs vary quite much.

THE PRESENT SERVICES IN NORTHERN NORWAY

There is no comprehensive psychiatric case register for the whole area. The total flow of persons through different units in the service-system is therefore not possible to trace. However, there is a register for all admissions to Åsgård hospital, starting in 1980, and at present complete to the end of 1998. Table II shows the development of the activities of the hospital since 1981. The extreme increase in number of first-admitted persons is alarming, and so is also the increase in number of different persons treated per year. Since the number of beds has not changed, we think that the threshold for being admitted has been largely the same for the whole period. Consequently, it seems

Table I. - Changes in adult psychiatric services in northern Norway 1970 – 2002.

	1970	1980	1990	2002	Change in northern Norway 1970-2002	Mean for Norway 2002
Beds in psychiatric hospitals	2.60	1.96	0.62	0.62	- 76 %	0.86
Discharges from psychiatric hospitals	1.7	4.7	3.6	6.7	+ 296 %	7.2
Beds in psychiatric nursing homes/DPCs	0.61	1.2	1.18	0.65	+ 7 %	0.71
Discharges from p. nursing homes/DPCs	0.065	0.16	1.47	5.9	+ 8947%	3.5
Positions in out-patient units	0	0.065	0.40	0.73	+ 1017% ³	0.51
Consultations in out-patient units	0	12.5 ²	76.0	177	+ 1329% ³	177.6
Total positions in psychiatric services	2.7 ¹	3.0	4.2	4.2	+ 54 %	4.4

1: In 1977, earlier figures unavailable; 2: Estimated from figures for 1991; 3: Change in the period 1980-2002

Table II. - Changes in the function of Åsgård hospital 1981-1998.

	1981	1990	1998	Changes 1981-1998
NUMBER OF BEDS	0.60	0.60	0.59	0 %
First admissions	0.29	0.54	1.26	+ 341 %
Re admissions	1.77	2.22	4.77	+ 169 %
Number of different persons treated	1.45	1.96	3.41	+ 134 %

reasonable to conclude that an increasing percentage of the population is in need of in-patient treatment at the highest level. This is a very important public health issue, for which we have no research-based explanation. Clinically, we experience that the greatest change in the inpatient-population is the steady increase in drug-use among all diagnostic groups, more than 50% of all patients are now having drug-problems. Therefore, increasing drug-abuse in the population could be one important explanation. There is also a definite increase in depressed persons admitted because of parasuicide. Rønvik Hospital experience the same development.

The service-system in Nordland county is the best documented community psychiatric service in Norway. There are three rather large studies comparing services in this region with other regions. In the Lofoten – Oslo comparative study of help-seeking, there were surprisingly few differences between the rural north and the urban south area. The role of the general practitioner is emphasised both as an important contact person for people with mental health problems (Sørgaard *et al.*, 1996a), and as referring agent (Hansson *et al.*, 1997; Sørgaard *et al.*, 1999). Also, to contact a priest for mental problems was equally common in Lofoten and Oslo (Sørgaard *et al.*, 1996b).

In the Nordic multicentre study on schizophrenic patients living in the community, it was found that in rural areas, i. e. Bodø, the patients used the specialised

services less (Sørgaard *et al.*, 2003), and were less socially integrated (Sørgaard *et al.*, 2001). Whether this had some bearing on quality of life, is not accounted for (Hansson *et al.*, 1999). However, in a paper by Sørgaard *et al.* (Sørgaard *et al.*, submitted for publication), there seems to be better satisfaction with the services in rural areas than in the cities.

In the Nordic comparative study on sectorised psychiatry, where the DPC in Bodø participated, the lowest treated point prevalence, both total (6.12/1000 inhabitants) and for functional psychoses (1.35/1000), was found in Bodø. The differences were four- and tenfold, respectively (Hansson *et al.*, 1995). Bodø, with the lowest number of beds and staff, was on the other hand among the services with the highest treated incidence rates and the highest turnover rate (Saarento *et al.*, 1995; Saarento *et al.*, 1996a). There was, however, surprisingly low correlation between treated incidence and accessibility of services. Continuity of care was negatively correlated to distance from services (Saarento *et al.*, 1998a). This is in accordance with the finding that the proportion of psychotic patients receiving inpatient care only, was highest in the rural areas, while the proportion receiving outpatient care was lowest (Saarento *et al.*, 1996b). Regarding utilisation parameters, such as emergency admissions to inpatient care (Saarento *et al.*, 1998a), proportion of patients who use only inpatient care (Saarento *et al.*, 1998b), emergency outpatient contacts (Saarento *et*

al., 1998c), median length of stay (Øiesvold *et al.*, 1999) and readmissions (Øiesvold *et al.*, 2000), there were no significant differences between urban and rural areas.

Summing up, there are some differences between rural and urban services, especially regarding the care of patients with functional psychosis. The incidence and prevalence figures presented could reflect a higher prevalence of psychoses in the cities. It could also reflect that primary care plays a more active role in the care of psychotic patients in rural areas, and especially in Norway, compared to the rest of the Nordic countries. This view is underlined by the findings of Øiesvold *et al.* (1998), that even in areas where self-referrals are common, the general practitioner plays an active role towards the most disabled patients. Consequently, it may be that the lack of continuity of care demonstrated in rural areas is compensated for by a more active primary care. On the other hand, the differences could also reflect the sparseness of resources in Bodø compared with the other sites. To further describe and analyse the psychiatric services, the two psychiatric hospitals and many DPCs are now participating in two ongoing projects that include outcome-measures (Øiesvold *et al.*, 2002).

There have been no projects studying treatment-effect in northern Norway. It is however reasonable to regard mortality as an indirect indicator of the quality of services. Mortality of patients in the register of Åsgård hospital have been studied for the period 1980-1992, and compared to the mortality in the earlier, institution-based system (Hansen *et al.*, 1997; 2001). The mortality of the psychiatric patients in relation to that of the general population was found to have increased in 1980-1992 compared to earlier, both for suicide and for cardiovascular diseases. In the sectorised, community-based system, long stay in an institution was to be replaced by continuity of care through different levels of service. We suggest that one reason for the increasing relative mortality could be deficits in the continuity of care.

PROBLEMS AND SHORT-COMINGS

Low beds-to-population ratio

One obvious problem is that the number of beds is significantly lower than in the rest of Norway. In an area with such great distances between peoples' homes and the DPCs, not to mention the two psychiatric hospitals, we think the beds-to-population ratio should rather be higher than the Norwegian average. In the present situation, the two hospitals are forced to discharge the patients after a very short stay, often before they have fully recovered, and before contact has been established at the local DPC. Also, the decision of the local GP as to admit or

not, will be based not only on the seriousness of the condition, but also on the treatment gain, in relation to the costs connected to sending the patients up to 1000 kilometres to the hospital. When the stay has to be short because of the shortage of beds, the gains of an admission will be less. Consequently, there will be a tendency of not admitting some persons that really needs it.

Recruitment of qualified staff, and differentiation of services

To recruit highly qualified staff, especially psychiatrists, has always been difficult in northern Norway. Henceforth, many DPCs were without a psychiatrist for many years, and some still are. The Norwegian Medical Association has had to construct a special program for northern Norway regarding education of doctors into specialists in psychiatry, with funding from the state. Other personal, like psychologists, social workers, and nurses who work in the DPCs, often have short work experience and not much experience or training in psychotherapy. Training them further is also difficult and costly, since many such training programs only take place in the south or in the two hospitals. Also, low number of staff per unit makes the services vulnerable, in the sense that sick-leaves and vacancies have greater impact on the treatment-capacity. Since the DPCs are quite small, it is also difficult to develop specialised and differentiated services, such as teams for dealing especially with psychosis, alcohol and drug-problems etc. In addition, it is difficult to offer intensive psychotherapy because the distances and the weather-conditions in winter make it impractical to come to treatment once a week. Partly for the same reasons, there are also very few facilities for active day-care treatment.

It must be underlined that the magnitude of these problems vary greatly between DPCs, and that also many treatment-units in the rest of Norway have similar problems.

Too low capacity in the out patient clinics

Many of the out-patient units have long waiting-lists, and have to give priority to the most serious cases. Persons with less urgent problems, but in definite need of treatment, cannot get specialised treatment, but have to rely on their GPs.

Psychiatric services for the Sami population

The Sami culture and language is very different from the Norwegian, even if this is somewhat hidden under a surface of "norwegianness" in many persons of Sami heritage. This makes it easy to overlook the problems with treating the

sami patients. In an ongoing project in Finnmark, the impact on treatment of an ethnic match between patient and therapist is being studied (Møllersen & Holte, submitted for publication). Recently, the government has started funding a national competence-centre in Finnmark for psychiatric service for the sami population. The main emphasis is on using the sami language in therapy.

CONCLUSION

The shift to community psychiatry in northern Norway has been difficult to realise because of too few resources, long distances between centres, and problems with recruiting skilled personal. Rising excess mortality and higher incidence of persons needing treatment at the highest level of care each year are serious warning signals. The state plan for escalation of money and personal in the services is probably not ambitious enough to come to terms with the need for psychiatric treatment in the population in northern Norway.

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