COSTS AND BENEFITS OF PROFESSIONAL PSYCHOLOGY:

INTRODUCTORY REMARKS

Bjørn Christiansen
University of Bergen, Norway

The existing recession and energy crisis in the Western world clearly demonstrate that limits on resources do exist. As the economies of most countries have slowed down, fewer recources have been available for new programs and new activities in those sectors of the society in which psychologists are primarily involved. Administrative bodies of various levels have begun to reassess their priorities, to exam the costs and returns of various activities. Nowhere has this emphasis on priority formulations and accountability been more evident than in the area of health and education.

There seems to be a generally agreed upon policy position in Norway that community health and mental health as compared to general hospital activities ought to be given a higher priority. In recent years there has been much talk about the development of community mental health programs to replace inpatient care for the mentally ill. However, there is great uncertainty as to how this is to be achieved.

We have all heard about the drastic reduction of the patient population in U.S. public mental institutions, from more than 560.000 in the mid-fifties to about 140.000 at the present time, but we have also

---

The author would like to acknowledge the help of Peter E. Nathan in planning the Geilo conference and his assistance in editing this report.

heard shocking stories of the fate of many of the released patients in local communities. We have heard about ex-patients being abused, robbed and raped, and many being moved over from the health care system to the correctional and the social welfare systems. We have been told that, in most instances, there has been little or no communication between the state mental hospitals releasing patients and the community facilities supposed to handle them, in large part due to lack of appropriate community resources. We have, of course, heard about the development of community mental health centers, but we have been left with the impression that many of these centers are given a too large catchment area (the size of the population to be served), that they are not appropriately funded and staffed to handle the services assigned to them, and that, in the view of some experts, their cost efficiency has been rather low as compared to services provided on a fee-for-service basis by independent practitioners, be they psychiatrists or psychologists.

In spite of the ill fate of many of the mental patients released by State hospitals, there is a clear trend, spurred on by the civil rights movement and the courts, emphasizing citizens' rights as well as rights to proper (high quality) treatment for the mentally ill, to abolish the state mental hospitals altogether.

In Massachusetts the number of patients in State Hospitals has dropped from 23.000 to 2.400 and plans exist to get rid of whatever is left of the system and to sell the land where the hospitals stand. A new system has been proposed based on community care, group homes, cooperative apartments, small psychiatric

units in general hospitals, and contracting with private mental hospitals to provide high quality care for the most difficult and violent patients (assumed to be about 500). The new system is calculated to be more expensive than the old one. Its success will, to a large extent, depent upon the building-up of sufficient treatment resources at the local neighborhood level.[1] That part of the plan which calls for building up group homes has already been started. A group home may consist of seven or eight residents and a staff member, or it may consist of four patients or so living in one unit of an apartment building and a pair of staff members living next door. Since 1975, Massachusetts has opened up 2.000 places in apartments and homes, and hopes to open at least a thousand more. It has been reported that the readmission rate dropped 25% after the homesystem was put into effect.

The abolution of large mental hospitals can be argued for in terms of humanitarian values. But, at a certain point in time, the following question will be asked: How much is a society willing (and able) to spend on the treatment of mental disorders? At this point, it will also be asked if the treatment programs in existence do in fact produce benefits commensurate with their operational costs. In the U.S., estimates have been made of the costs and losses to society resulting from mental illness. The losses of productive activity in one year (1976), have been calculated as follows:

[1] Spending on community-based care for mental disorders in Massachusetts increased from $ 26,8 million in 1976 to $ 108,3 million in 1980. The State's mental health law, effective in 1976, requires health insurance plans for recidents to cover at least 60 days hospitalization a year and $ 500 annually in outpatient care for mental and nervous conditions. Under the law, services are covered whether provided by either a licensed psychologist or psychiatrist.

Reduced Output by the Labor Force	28,60 billion $
Loss of Homemaking Services	1,94 billion $
Reduction in Unpaid Activities (volunteer work, recreation, etc.)	0,48 billion $
Total	31,02 billion $

It has been estimated that costs of treatment and prevention in the same year amounted to somewhat less than 8 billion. The estimated figures are:

Inpatient Care	5,00 billion $
Outpatient Facilities	2,20 billion $
Training, Research and Development	0,66 billion $
Total	7,86 billion $

Such a gross national mental health budget suggests cleraly that the societal expenses connected with mental disorders are substantially higher than the annual expenditures for treatment and prevention. The figure doesn't tell what the loss would have been if all treatment plans had been abolished, but it is worth while economically to invest in treatment as long as the benefit of treatment exceed its cost. In other words, it can be argued that there is social justification for extending outlays on mental health programs to the point where they equal costs. Transferred to the figures quoted, each extra dollar spent on mental health has the potential of a higher than one dollar return. Of course, this type of reasoning can be pursued ad infinitum although, if the starting point is a balanced or deficit budget, the benefit of new investments would have to be assessed in terms of reduced treatment expenses.

This is not the place to go into the raw data and the assumptions and equations used to arrive at the cost estimates presented. The important point is that, given these estimates, which I believe are the best ones produced so far, there is a substantial "surplus" of potential social benefits over costs in the mental health field, suggesting that increased investments are highly desireable.

Confronted with a situation in which increased public expenditures for almost everything is curtailed, the possibility of long term benefits in one area would have to be balanced against the damage of cutting investments in other sectors or, more likely, by reducing expenses for other activities within the same area.

It cannot be questioned that psychologists in Norway do represent a substantial resource in the mental health field. Nearly half of the present population of approximately 1000 psychologists occupy positions in mental health institutions and at least three out of four are professionally concerned with mental health issues. Each year approximately 100 new psychologists are licensed by the State Board (after graduation from university programs in psychology), which implies that the present population of psychologists is growing at the rate on nearly 10% per year. From the point of view of national planning to enhace mental health and reduce mental disorders, the question should be raised as to what would be the most beneficial deployment of this growing group of professionals. Granted the policy objectives stated earlier, the answer would have to go in the direction of strenghtening facilities at the local community level. Several

options exist as to how this can be done.

In comprehensive national public health planning, up to this day, psychologists have been looked upon as specialists on par with psychiatrists, or sometimes as even more specialized, as like someone to whom psychiatrists can refer patients for specialized assessment and treatment. Generally, psychologists have been considered as "second line" health personnel, to be called upon by "first line" personnel when they encounter problems beyond their own level of competence. There has been much talk about organizing the public health system according to the LEON-principle, which means that a patient should be handled and treated at the lowest level of efficient care, which further implies that only those patients who cannot be dealt with efficiently at the primary level (in the first line) should be referred to the more specialized services at the regional level, and only those who cannot be efficiently treated at this level should be referred to the most specialized services at the national level. Although this model sounds rational and reasonable, it overlooks that differences exist between physical and mental disorders, and that over several decades great investments have been made in the building up of publicly supported somatic health facilities at the local level, while very little has been done to develop comparable mental health facilities. It also overlooks the fact that the first line of care for mental disorders is social institutions like the family and a person's social network, consisting of neighbors, friends and aquaintances.

It has been shown again and again that practically all persons with emerging psychological problems and distress initially consult with informal helpers in the local community and that it is through such helpers (when their help does not work) that they are referred to professional helpers and/or to public agencies. The major deficiency of this system is that the professional helpers and agencies at the local level (if the person is not living in a big city) by and large are not more qualified to provide help than the persons initially encountered. So one is faced with a system employing resources that hold on to people (and often replicate earlier advice) instead of offering the type of help and treatment called for. A major consequence of the system is that emotional problems get somaticized, i.e., psychological problems will tend to the transformed into a modality of expression congruent with the helper's concern and attention. This being the case, the socalled first line of public health care will, to some extent, be handling pseudo-problems and impede more than facilitate proper solutions. In any case, the application of the LEON principle in mental health planning requires the deployment of psychological competence at the lowest level of public health care. So far, this has not been recognized and fully understood by the public health authorities in Norway.

Is it possible to support the assertion just made by reference to empirical evidence? I believe so, although I have to admit that we have to turn once more to American data since no Norwegian studies are presently available. I would consider it a substantial support of my point if it could be documented that early

psychological interventions do reduce the utilization of somatic health facilities to such an extent that the costs of the psychologica services can be fully paid for by the savings obtained on medical expenditures generally.

It has been estimated that American psychologist practitioners in the late seventies offered psychotherapeutic service to approximately 3 million patients/clients per year and that their annual total service load amounted to approximately 19 million hours. A substantial part of the psychotherapeutic services offered was provided to patients covered by insurance systems and by systems which recognize psychologists as primary providers, that is, as providers who do not require medical referrals or sanctions. These are features that have to be present in order to examine the cost-efficiency of first line psychologist services.

One way of assessing the effect of primary care by psychologists is to look into the insurance benefits paid to psychologists and compare this amount with the benefits paid to physicians and medical units before and after the patients' contact with the psychologist. Another procedure would be to compare the insurance outlays for groups of patients, some being offered and some being denied primary care by psychologists. In this case, carefully matched control groups would be necessary. In the first instance, the control issue is being handled by each patient being his own control.

Before going into the question of cost-efficiency, it is important to examine the utilization of psychological services where such

services are considered primary services remunerated by insurance companies. A large amount of data has been collected regarding the usual length of mental health treatments and the utilization rate of mental health benefits. Several studies have found utilization rates consistently over years to be just below 2%. Length of outpatient psychotherapy is repeatedly been found to average between 6 and 12 sessions, with 80% of the treatments being completed in less than 20 sessions. The fear sometimes expressed by public health officials that including psychologists' services in health **insurance** coverage will skyrocket the expenses in an unpredictable way has not been substantiated by any large scale study.

To examine the cost-therapeutic effectiveness of psychological services, the following index (Ratio) has been proposed by Cummings:

$$R = \frac{\textit{Medical utilization for the full year prior to psychotherapy}}{\textit{Medical utilization the full year following the initial psychotherapy visit} + \textit{No. of psychotherapy visits during the year}}$$

The higher the index the greater the effectiveness of therapy. One can include numbers of visits only, the amount of expenses, the amount of inpatient and outpatient utilization, etc.

Examining the data files of the Kaiser Permanente insurance plan, Cummings reports an index value of 1,9 for patients being offered primary service by psychologists, as compared to an index of 0,88 for a closely matched control group. Including psychologists as primary providers has over the years been firmly established by this organization. Since a large amount of data has been

collected, it is even possible to examine the cost effectiveness of various types of therapy. In one study a breakdown was done regarding the length of therapy. It was found that brief psychotherapy (from 1 to 15 sessions, with a mean of 8,6) was delivered to 84,6% of the patients, that long-term therapy (more than 16 sessions, with a mean of 19,2) was delivered to 10,1% of the patients and, finally, that in the case of 5,3% of the patients an endless therapy relationship developed (with a mean of 47,9 sessions per year). It was a surprise to the investigators that the cost-effectiveness index for the three groups of patients was found to be 2,11, 1,14 and 0,91 respectively. Thus, brief psychotherapy turned out to be the most cost efficient one, and follow up studies of patients five years and more after the termination of psychotherapy substantiated this conclusion. Subsequent studies also indicated that socalled interminable patients benefited more from monthly and bimonthly therapy sessions than from one to three sessions a week. A large amount of information has been collected suggesting rather convincingly that the cost effectiveness index employed in these studies does in fact correspond to psychotherapeutic effectiveness.

Of course, the question of psychotherapeutic effectiveness is a tricly one. Historically, the psychotherapist wished to possess the exclusive right to assess the outcome of his own treatments. In recent years it has been widely agreed upon that psychotherapy outcome should be evaluated both from the patient's point of view ("Does he feel he has benefitted from the treatment?"), from the therapist's point of view ("Does he think the patient has changed significantly?"), and from the society's point of view.

The latter would include so-called significant others in the patient's life, but to the extent that the treatment is paid for by tax-money or by insurance premiums, this third party would necessarily also have a legitimate interest in knowing to what extent the therapy outcome is congruent with its own values. Mental health professionals customarily strongly reject being accountable to social and political authorities. This is a difficult position to defend if the same professionals want to manage and consume resources for which others are held largely responsible by the democratic process and by society at large.

Transferring the American experience to the Norwegian scene, we would estimate that the annual need for primary psychological services to the adult part of the population is in the vicinity of 700.000 sessions. With an average cost of NKR 150,- per session, this amounts to a total of approximately 105 million NKR. Given a work load of 1.000 sessions per year per psychologist, we end up with a program which would require the deployment of 700 full-time professionals. However, from this number we might probably deduct as many as 100 in recognition of the fact that the Oslo region already has a rather comprehensive sectorized mental health delivery system at the primary level. More than 50% of the contry's psychiatrists and close to 40% of all clinical psychologists are presently working in this region. The need for new primary care psychologists can thus be stipulated to be approximately 600. Regarding the cost of the program it has to be kept in mind that we are assuming a net saving for the national health insurance scheme of more than one NKR for each NKR being invested. The program does not presuppose any additional expenditures,

only a reallocation of present day insurance remunerations.

A critical issue in transferring the above cost efficiency analysis from the US to Norway is the comparability of medical facilities in the two countries and the comparability of the competence level of psychologists. Regarding this last point it is worth noting that the total number of years of theoretical schooling and practical experience in psychology presently required to reach the competence level for remuneration from the Norwegian Health Insurance System is higher than requirements in the U.S. for independent psychotherapeutic practice and for remuneration from major insurance corporations. A change in the Norwegian requirements to two years of postgraduate supervised practice in a health setting of recognized quality would ensure an approximate equality in standard but, of even greater importance, it would increase the pool of qualified professionals and shorten the time span required to put the community program described in operation.

As alluded to, differend options exist as to how such a program could be organized. One model is the private practitioner model. Two more models call for the establishment of community health teams which might take the form of group practices or public health centers. A fourth model would build up outreach units within existing public and private mental health institutions. In choosing among the models, two factors have to be emphasized. It is important to adopt a model that will provide service to the largest possible extent to the whole population and a model that will provide these services with a high degree of cost efficiency.

Neither the private practitioner model nor the outreach unit model will ensure countrywide coverage. The private practice model will, by and large, ensure high cost efficiency, granted quality standards are set up and enforced by competent claim review boards. An independent practitioner, due to lach of regular stimulation from colleagues, might however over time have difficulties in keeping abreast professionally. The big mental health institutions with many types of specialists will often provide stimulating challenges and continuing education, but very often more to the benefit of the professionals than to the patients served by the institutions. Experience indicates that big mental health institutions show relatively low cost effectiveness and that they are extremely resistant to the changes often called for by societal developments and treatment innovations having organizational repercussions. This being so, we are left with the group practice and public community health center models. A further delineation of these models might be of value although personally I would think their comparable excellence would much depent upon the attitudes of the individuals involved.

Moving patients out of mental hospitals and back to the community can only be done without deleterious results if sufficient community mental health facilities have been developed in due time. Although the program outlined for community deployment of psychologists was motivated primarily in terms of preventing people with emerging emotional problems from being given inappropriate medical care, the same program could also be initiated for the sake of providing community resources for a partial replacement of inpatient treatment of mental disorders. It is fully recognized

that hospitalization is both desirable and necessary in many cases, but it should also be recognized that hospitalization often has been and still frequently is being used to compensate for lack of community resources. Group homes and occupational opportunities are one kind of resource, psychological services another. What I have been arguing for is that a first line of care should be established with sufficient competence and that the second line, the psychiatric institutions with their professional expertise and facilities, should only be called upon when the problem cannot be handled properly through psychological means or handled properly through the combined efforts of the psychologist and the general practitioner physician. Psychiatrists, being both medically trained and properly trained in psychological sciences and skills, are very expensive to produce and they are few in number. Thus, they should primarily be deployed in positions where their unique background can be fully utilized. It has been estimated that to train a psychologist fully requires only half the public expenditures to train a psychiatrist fully. It has furthermore been asserted that two-thirds of a psychiatrist's work in most psychiatric institutions for adults can be taken over by psychologists without reducing the quality of care, and that, in institutions for children, the overlap in functions may sometimes be as high as 90%.

In a societal perspective, psychologists too have to be considered high cost personnel. Stating the question as to what extent psychiatrist's activities can be taken over by psychologists, likewise it has to be questioned whether psychologists sometimes are ascribed functions which profitably could be taken

over by other people with less extensive training and formal education. In recent years many psychologists have been strongly engaged in the training of so-called lay personnel for psychotherapeutic functions and crisis interventions. The role of the psychologists has been described as an educator in medical settings and as a consultant for community agencies. The great danger in such a role is that both high quality psychological teaching and consultation presupposes an intimate and continuing personal familiarity with the problems at stake from the point of view of those receiving information and supervision. This does not argue against psychologists being consultants and educators, but against such activities not being balanced with personal involvement in direct patient care. The whole issue of cost efficiency in terms of professional training and work functions is a complicated one in which proper weights have to be assigned both to immediate effects and to future growth in knowledge and technological innovations.

So far psychologists have been reluctant to engage themselves in health economics and planning. Instead of being in the forefront in evaluating programs in which they are engaged, there has been a tendency either to deny the possibility of establishing criteria of success and failure or to refer the issue to top level public administrators, to accountants and to managements specialists. It has not been the primary purpose of this chapter to point out that evaluation research should be done in the mental health field. Such research is done and will be done regardless of whether psychologists become interested or not. My main objective has been to show that mental health planning

is a field of great importance to the future of professional psychology, and to indicate that such planning is closely linked with cost estimates and potential societal benefits.