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23 Outcome Research

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Chapter 23 to
Thure von Uexküll et al. (1993) Psychosomatic Medicine

Overview:

23. Outccome research - a never ending story

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23.1. Introduction:
Outcome research - a never ending story

Practitioners of psychosomatic medicine using psychotherapy as their main therapeutic tool view their field not only as a supplement to somatic medicine, but also as a fundamental alternative and challenge: "our plea for a holistic perspective on the human being transcends the body as sole object of medicine; we work for a bio-psycho-social medicine instead of a reparative technique for disturbed somatic functions; we conceive of medicine as a talking (and listening) curative process" (Meyer et al. 1991). This conception of psychosomatic medicine makes outcome research a difficult task for many psychotherapists. However, claiming to provide a more suitable or even better therapy for many patients involves scientific issues that have to be faced for better, for worse (Strupp & Hadley 1977).And it is even worse than "worse": the question of the better therapy could not be answered conclusively. New developments within the field as well as societal, economical, and other changes turn outcome research into a never ending story.

Psychosomatic medicine and psychotherapy was - and still is - challenged to be precise in indicating the kind of impact that can be achieved for which patients under which conditions. The notion of a holistic approach has to be detailed and translated into researchable questions: "no form of therapy has ever been initiated without a claim that it had unique therapeutic advantages. And no form of therapy has ever been abandoned because of its failure to live up to these claims" (Parloff 1968).

The findings from systematic outcome research are aimed at different audiences - e.g. at psychotherapists who conduct the treatment as well as to health professionals from related, and often competing disciplines. Research findings are addressed to those who benefit directly from therapy (e.g. patients or their relatives) as well as to those who fund the costs (e.g. insurance companies) or who are responsible for adequate health policies (e.g. politicians, unions). The various groups may have totally different expectations (Strupp & Hadley 1977). Therefore outcome research has to provide a

variety of information to satisfy the needs of the different interest groups. These points have several implications:

a. The results of treatment are *per se* not truly objective. In a sense, they are the product of a societal bargaining. Different interest groups have different aspirations, and social processes affect the way data are collected, interpreted and utilized.

b. The results of treatment are placed in a historical context and are dependent on consensually-accepted procedures that become the "standard" at that time and place.

c. Different methods may be needed to meet the demands of the different audiences, for example, a controlled clinical study may be the only acceptable way to convince a science-oriented internist, whereas a therapist or a patient may be better convinced by the report of another patient´s personal experience.

Views and values, especially the ideas about health and illness held by the persons and social groups involved, are in a process of constant change. The goals of treatments may shift and new groups of patients place changing demands on the healing professions, or economic conditions alter the basic framework for providing treatment altogether. In one period the focus may be on the removing symptoms, wwhereas in another perriod it may be on improving the cost-effectiveness of the treatment. Therefore psychotherapists have constantly to be alert so as to provide new answers to new questions. Psychotherapy research thus works with a moving target: "the longer a psychotherapy has existed and the more widely it is practiced, the less likely it is that the treatment procedures will remain consistent or in any sense 'standard' " (Parloff 1983).

With the growing recognition of psychosomatic medicine and psychotherapy as effective forms of treatment, both critical attention from outside and self-critical reflection from within the scientific field have been increasing: "if progress in science means, in part, to become increasingly aware of the sources of one's ignorance, together with an ability to ask better questions, psychotherapy research has made significant advances" (Strupp & Howard 1992). The time has past when psychotherapy was protected in an ecological niche of private esotericism (which also provided an atmosphere of discovery-oriented clinical work, to honor Freud's contribution). The public is now questioning more acutely: "psychotherapy is no longer a voluntary contract

between a patient and a therapist" (Korchin 1983). The gain in public reputation calls for, and relies on, improved professionalism. But this has its price: "as responsible professionals, therapists must learn to think critically and scrutinize the quality of their professional activities and the therapeutic 'product'. This has always been the hallmark of a mature profession." (Strupp & Howard 1992).

For therapists viewing themselves as being engaged in a deeply humanistic enterprise, this constitutes a major challenge to their professional identity. Striving for the very best for one's patient while bearing in mind the macro-economical conditions of psychotherapy really is a major emotional and intellectual strain. The trend of psychotherapy research thus becomes truly interdisciplinary, a sharing of responsibility between clinicians and researchers. Then, however, modern therapy research may have "enormous practical implications because it will lead to more focused therapeutic strategies and provide sharper answers to the question of what psychotherapy can do for particular patients, at what costs, and over what periods of time." (Strupp & Howard 1992).

23.2. A historical outline

It is by now a well established practice to divide the development of psychotherapy research into historical phases (Grawe 1992; Kächele & Kordy 1992; Meyer et al. 1991; Shapiro 1990). However, these hundred years of discovery in psychotherapy since Breuer and Freud's "Preliminary Communication" of 1893 have not been characterized either by a steady or even a linear development; instead there have been sudden shifts and turns, direct progress as well as impasses. Some major features are discernible:

23.2.1 Discovery oriented case studies

Especially in the early years demonstrating successfully treated single cases was aimed at convincing the public. One of the most venerable examples is the report by the Viennese physician J. Breuer on his famous patient: "Anna O. came with hydrophobia, speech disorders, pareses, etc.; she was treated and the symptoms vanished." For the initial phase of a new method, this procedure is well suited. Single cases, and their intensive clinical discussions, are a natural and useful basis for the implementation and differentiation of a new procedure. A lively method of treatment will continue to value this case study approach in order to continue the process of development based on clinical

discoveries (Kächele 1981). In general, the strategy of single case oriented research methodology is of great importance for all types of interventions (Kordy & Normann 1992; Leuzinger-Bohleber & Kächele 1988).

Systematically documented case reports that have been clinically evaluated with regard to the success of treatment--(at the Berlin Psychoanalytic Institute (Fenichel 1930), at the Chicago Institute of Psychoanalysis (Alexander 1937), or at the Heidelberg Psychosomatic Clinic (Boor & Künzler 1963)) -- strengthened the position of the then-new therapy called "psychoanalysis." Among psychotherapists there was a general belief that what they were doing was usually effective, and support for this belief was provided predominantly through reports of individual cases (APA 1982).

23.2.2 Justification Research

The first successful steps in establishing aparticular form of therapy usually increase the critical attention from without. Psychotherapy became a serious scientific realm, so inevitably an object of criticism. It was then no longer enough to assure one´s colleagues that one was doing good therapeutic work. In a widely quoted paper, Eysenck (1952) questioned the effectiveness of psychotherapy and asked for a 'scientific' proof that psychotherapy was more effective than the so-called spontaneous recovery. Using the files of insurance companies he calculated the rate of so-called spontaneous remissions, and thus defined a spurious standard for the evaluation of psychotherapeutic treatments. Today there is ample agreement[1] that Eysenck overstated the case. A recent re-evaluation based on aspects of dosage shows that Eysenck's own data support the effectiveness of the compared treatment to his untreated samples (McNeilly & Howard 1991). The demand for a scientific justification, emphasizing the need for comparative norms or standards, provoked an important developmental step in psychotherapy research. Thus, until the end of the seventies, two main questions dominated outcome research. As formulated by Parloff (1979), these were:

- Does the change effected by psychosocial treatments exceed that which may be attributable to the mere passage of time or to the individual's own recuperative powers; that is, what is the role of spontaneous remission?

- Are the effects of psychotherapy attributable to the use of specific techniques clearly differentiable from the influences of so-called nonspecific techniques of suggestion, persuasion, or commonsense advice; that is, what is the role of placebo effect

Stimulated by the passion of discovery, and challenged by provocateurs such as Eysenck, quite a few large scale and ambitious studies were begun in the fifties. Two of these classics that are representative in their aims still exert an influence on present-day discussions.

- The Psychotherapy Research Project (PRP) of the Menninger Foundation was constructed during the years from 1952 to 1954. It was established within an informed and skilled clinical community, a full-time, salaried, professional staff dedicated to the intensive psychoanalytic psychotherapy of the seriously ill ... A group of clinicians and clinical researchers within this professional community decided to try to learn more about its central professional activity and to seek more precise answers to two simple questions: First, what changes take place in psychotherapy? Second, how do those changes come about through the interaction of which constellation of factors in the patient, treatment and therapist, and in the patient's ongoing life situation? (Wallerstein 1989).

The outcome of this ambitious enterprise resulted not only in many publications[2], but also helped to establish psychotherapy research among psychoanalytic clinicians. When Wallerstein summarizes about 40 years of intensive empirical research, his final statement comes across like a grand old wisdom:

"The overall outcomes achieved by more analytic and more supportive treatments converge more than our usual expectations for those differing modalities would portend; .. For our results clearly show that, to be maximally effective, each psychotherapeutic approach must be matched with that patient for whom it is most appropriate" (Wallerstein 1989).

More pragmatic and explicitly geared towards Eysenck's challenge was a German study directed by A. Dührssen in close collaboration with the local general insurance company, AOK, Berlin. The study investigated the efficacy of psychodynamic treatment (mean length approximately 100 sessions) using a large sample of 1004 patients (Dührssen 1962; Dührssen, Jorswieck 1965). The authors were able to demonstrate the monetary utility of psychotherapy: patients after treatment spent much fewer days in hospital per year (0.78 days) than the average insurance client (2.4 days). This result strongly contributed to arguments for including psychoanalytic psychotherapy in health insurance coverage in the FRG.

23.2.3 Process-Outcome Research

Since the thirties other forms of treatments have begun to develop. It is in this context that Eysenck's harsh critique was directed against the psychoanalytic stance in order to promote the then recently developed behavioral approaches. The phase of competitive treatment research reached its high watermark in the seventies when one of the many reviews on comparative studies in psychotherapy pointed out that "all have won, all must have prizes" (Luborsky et al. 1975). It seemed more fruitful to look for differential effectiveness with different causal mechanisms within the variety of treatment approaches. Therefore the leading question in process-outcome research was framed as follows: For this particular individual with this problem, what treatment, by whom, at which time and under which conditions, leads to what extent of benefit in how much of time? Prominent examples of this type of approach are the Temple Study (Sloane et al. 1975), the Penn Study (Luborsky et al. 1988), the Hamburg Study (Meyer 1981), and the Bern Study (Grawe et al. 1990). It is characteristic of this kind of study that they not only try to identify the more effective type of treatment--even if this had been the original motive for implementing a study--but also that they carefully study conditions of success and failure (Grawe et al. 1990; Strupp 1980). The focus on patients' conditions or on treatment modalities from the earlier phases markedly shifted to the features of the therapeutic process.

In the 3rd edition of the *Handbook of Psychotherapy and Behavior Change*, Orlinsky & Howard (1986) presented a host of detailed findings on the relationship between therapeutic process variables and the outcome. Based on these correlative findings and on their own long standing involvement in research and clinical practice they developed the "Generic Model of Psychotherapy." This model not only integrates a vast amount of research findings but also presents a theoretical framework for a research program; we therefore provide a condensed version of it:

Psychotherapy is viewed 'generically' as taking place within a societal context. Ultimately it is bilaterally contracted between the parties directly involved as patient and therapist, although often with additional indirect participation by other agencies e.g., families, clinics, and insurance companies. The 'specific' frame of each psychotherapeutic treatment is determined by the therapist's treatment-theory, in a context provided by general societal norms of health and illness, and the organization of the therapy service delivery system. Within

this frame, patient and therapist jointly implement the theoretically indicated diagnostic and therapeutic procedures. In the process of doing this, the personal qualities of patients and therapists imprint themselves on the therapeutic relationship, which constitutes the primary matrix for therapeutic influence. A positive therapeutic bond helps immediately to restore the patient's morale, and also influences the patient by facilitating the impact of therapeutic interventions. This impact is significantly determined by the self-relatedness, i.e., openness or defensiveness of the patient. Positive in-session impacts such as 'catharsis' or 'insight' may lead to immediate micro-outcomes in the patient's current life, and also feedback into the therapeutic relationship by strengthening the bond between patient and therapist. A stronger bond affects the patient's self-relatedness in the direction of greater openness, and thus the accumulation of positive impacts eventually enhances the potency of therapeutic interventions. By the same token, negative in-session impacts such as unempathic or rejecting responses from the therapist tend to weaken the therapeutic bond, restricting the helpful impact of therapeutic interventions by increasing the patient's defensiveness.

This complex structure describes the therapeutic process as a feedback system. The result of a session influences the further process, and this in turn influences the results of sessions yet to come. Finally, the Generic Model returns to a macro-perspective by focusing on how the final outcome of treatment results from the many micro-events, the real 'ups and downs', within the course of psychotherapy.

The micro-level is investigated by process research. Traditionally, evaluation research focused on the macro-results of treatments. Process-outcome research combines both perspectives. The key problems in understanding the efficacy of psychotherapy may be presented in the following terms: how are in-session impacts and immediate micro-outcomes ultimately transformed into macro-outcomes?

At presdent we have no conclusive method for solving this problem, although there are some data available. It is known that therapeutic success is positively associated with length of treatment or total number of sessions--which, paradoxically, in the USA is often greater in 'time-limited' therapies than in open-ended treatments (Orlinsky & Howard 1986; Weber et al. 1985). These findings point to the idea that micro-outcomes do accumulate somehow to macro-outcomes; whether this happens by way of simple addition, or whether

a more complex model has to be constructed, is still an open question. First approaches have used the language of dose-effect models (Howard et al. 1986; Kordy et al.1989) to construct a "Phase-Theory of Psychotherapy" (Howard et al. 1992). However, some critics have decried the use of a drug metaphor, implied by dose-effect analyses and the broader search for 'effective ingredients' of psychotherapy, as an appropriate model for process-outcome relations (Stiles & Shapiro 1989; Stiles et al. 1986).

23.3. Results

The studies on outcome research presented so far represent only some major landmarks. Even at the beginning of the seventies there already was a wealth of studies, as evidenced by the reviews of Meltzoff & Kornreich (1970) and Luborsky et al., (1975). These reviews consistently demonstrated the efficacy of psychotherapy for different classes of patients and illnesses. The method used for integrating the findings, the so-called 'box score' method, did not permit a summary estimate of the size of the effects. This changed when Smith et al., (1980) introduced the statistical method of meta-analysis for studying "the benefits of psychotherapy." This work gained considerable praise: Fiske (1983) spoke of the "meta-analytic revolution of outcome research". The authors presented a review of the research which at the time covered the greatest number of studies, i.e. 475 controlled psychotherapy studies totalling about 25,000 patients. By using the method of meta-analysis for the first time in psychotherapy research, they were able to integrate the 1,766 treatment effects reported in the 475 studies and arrive at a summary estimate of the effect of psychotherapy. On the basis of their method they concluded that 80% of those patients who received psychotherapy were better off than the average person who had no treatment. Such an effect is quite impressive. The meaning of this may be illustrated by a comparison:

> Assume that 40 year-olds alive today can look forward to a mean life expectancy of 70 years, with a standard deviation of 10 years. A treatment with an average effect size of .85 will raise the average person's life expectancy by 8.5 years: "frankly, I wouldn't want to be standing in front of that clinic when it opened its door--the odds are that I would be trampled to death" (Gallo, 1978).

In keeping with the importance of the study, prominent critics took part in the discussion: "an exercise in mega-silliness," in the eyes of Eysenck (1978). Indeed, any effort to integrate findings from many different studies is

confronted with the problem that the non-comparable has to be compared. Glass & Kliegl (1983) discussed three main problems:

(1) The difference in methodological quality between the studies.
(2) The assumption of uniformity that patients, therapists and treatments are all alike with respect to outcome probabilities.
(3) The problem of incommensurability of the various studies that have been performed with different assets, different criteria of success and different methods of measuring outcome.

These are indeed sizable problems, yet they have incited researchers to find empirical answers. Other meta-analytic studies have been produced with more stringent inclusion criteria (Landmann 1982) or with more selected, more homogeneous groups of patients (Lambert et al. 1983; Wittmann & Matt 1986). The results of these more recent studies support the core statement of the meta-analytic approach that psychotherapy "works." The same conclusion is arrived at by Grawe et al. (1990; 1993), who carefully analyzed 900 controlled treatment studies taking into account the quality of the study from many points of view. The results of this evaluative work have been integrated into expert report requested by the Federal Government of Germany to clarify the necessity for a new profession--the profession of the non-medical, psychological psychotherapist. (Meyer et al. 1991).

23.4. Outcome research for established therapies

Isolated in its scope, restricted outcome research came to an end, not to say a dead end, in the eighties. The findings of many investigations consistently justify psychotherapeutic treatments becoming an integral part of the medical system. This success opens a view for raising new issues. The development of psychotherapy research in the nineties must be characterized by a growing diversification of research approaches. Process-outcome research, health care system research, and large scale multi-site studies on the treatment of specific diseases illustrate this diversity (e.g.: the NIMH Treatment of Depression Collaborative Study (Elkin et al. 1989); the Lübeck multicenter study on Crohn's disease (Feiereis 1990); the Mainz pain study (Egle et al. 1992)). We also are confronted with growing demands of routine procedures for mental health evaluation (Newman & Sorensen 1985) which also are discussed under the heading of quality assurance (Howard et. al 1991; Kordy 1992).

23.4.1 Process research

We are now faced with the seeming paradox that, in spite of the overwhelming and certainly impressive evidence for the most frequently practiced forms of therapy, we are faced with many critical voices complaining that the many outcome studies have not contributed to a better understanding of therapeutic mechanisms. It is within this context that the very material of the therapeutic process is rediscovered and the detailed analysis of single cases once more achieves a prominent status (Dahl et al. 1988; Greenberg 1991; Greenberg & Pinsof 1986). Though it is obvious that an intensive analysis of single cases can be done for only a few patients, many researchers consider a detailed case description the *via regia* (royal road) to understanding how psychotherapy works.

At the same time as broad and global views of the therapeutic process were being elaborated - as illustrated above by the 'Generic Model' - other investigators increasingly focused on details of the treatment process itself. Thus, for example, Benjamin (1974), Horowitz (1988, 1992), Luborsky (1976), Rosenberg et al (1986) and Strupp & Binder (1984) have described psychotherapy in terms of the patient's maldaptive interpersonal interactions and have emphasized goals of treatment that include specific corrective interpersonal interactions with the therapist. This attention to specific details of treatment has required new assessment procedures (e.g. measuring interpersonal problems, interpersonal behavior and the therapeutic alliance) and a better joining of moment to moment events that significantly influence treatment outcome.

In 1988 Grawe and Kächele organized a large scale German-speaking research group. Thirty scientists, meeting bi-annually, are studying two short-term therapy cases of different theoretical orientation, behavioral and psychodynamic. These were video-recorded and transcribed in their entirety. The aim of applying a diversity of analytic methods is to compare the scientific utility of methods, and to map out the way to construct an empirically grounded model (Kächele 1990a).A similar attempt to investigate the intricate mechanisms of change by studying single cases, is directed by Horowitz (1991) and focuses on "person schemas and maladaptive interpersonal patterns." The construct 'person schema' has been analyzed using different methods that are derived mainly from psychodynamic and cognitive theories.

These studies may be necessary supplements to mere outcome research. The researchers involved are fascinated by their activities and funding organizations are willing to give generous financial support, so many

colleagues look forward to yet another breakthrough in psychotherapy research.

23.4.2 Specificity

The problem of finding specific treatments for individual patients with particular disorders is known as differential indication. As psychosomatic medicine has a holitsic approach this way of posing the question creates some tension, because psychosomatic medicine does not wish to be reduced to the kind of medicine offering special interventions for some disorders only. Specificity, however, has constituted the core of psychosomatic medicine ever since Alexander (1950) described the 'seven holy diseases' for which psychosomatic intervention was claimed to be effective.

It took some time in psychosomatic medicine and psychotherapy to realize that this situation was not principally different from that of somatic medicine. There the development of multi-center studies led to progress because the large sample collected allowed to achieve homogeneity of sub-samples leading to stronger scientific conclusions.

In 1977 the NIMH initiated the "Treatment of Depression Collaborative Research Program" under the direction of M. Parloff and I. Elkin. In a multi-site controlled clinical trial the efficacy of two forms of psychotherapy (cognitive behavior therapy and interpersonal psychotherapy) were investigated in relation to a standard reference treatment (imipramine plus clinical management) and a clinical control (placebo plus clinical management). All therapies were based on special manuals and all therapists were specially trained to a specific set of criteria in their delivery. All sessions were videotaped, so that the researchers could determine what the therapists actually did. Data on the patients, therapists and treatments were gathered at different points in time: pretreatment, during treatment, termination, and 6-, 12- and 18-month follow-up. The global findings, published by Elkin (1994), again demonstrated firstly significant improvement for all three forms of therapies in relation to the control group and secondly no substantial differences between the different treatment approaches.

In Germany the Federal Government initiated a research program to improve psychosomatic and psychotherapeutic patient care (Heimann & Zimmer 1987).

This program supported many studies of various psycho-social treatments In line with the methodology of clinical trials here too the model of controlled study of homogeneous patient groups with random allocation of patients has been favored. A typical project in this program is a multi-site study on the psychotherapy of patients with Crohn's Disease. Four clinics shared their patients in an effort to investigate the additional gain psychotherapeutic intervention may bring to these patients (Feiereis 1990)[3].

Especially in psychotherapy with patients suffering from severe somatic symptoms, the problem of outcome criteria is a very tricky one. What is the relationship between somatic and psychological criteria, and in what way does one quantify the subjective and the objective dimensions? In the Crohn study the improvement of the somatic status has been made the decisive criterion for the efficacy of the psychotherapeutic intervention. This is very ambitious, as our knowledge of the connections between psychological and somatic changes is quite limited. Basic research on the course of chronic psychosomatic disorders is practically non-existent, a situationm which has been desscribed by Normann & Kordy (1991) with respect to the course of Crohn´s Disease.

Criterion-oriented research not only constitutes a problem for outcome research with psychosomatic disorders but leads to additional theoretical questions. In general, the discussion of criteria of outcome has been much neglected in outcome research. Up to now individual research groups have been free to select their own criteria and to operationalize the measurement procedures. This is astonishing since the problems of standardization are well known: "what does an improvement of '.85 of a standard deviation' mean to a patient? ... How important is it to score .85 of a standard deviation above a control group on a pencil-and-paper- test of self esteem or manifest anxiety?" (Gallo 1978). Various strategies have been recommended for developing meaningful procedures - both from a theoretical-clinical perspective (Kish & Kroll 1980; Rad v &. Senf 1986; Ticho 1971) as well as from a statistical-methodological point of view (Jacobson, Truax 1991; Kordy, Scheibler 1984; Kordy, Senf 1985; Saunders et al. 1988; Speer 1992; Wittmann 1985). The deficit is, at least in part, due to the following circumstances; as an investigator tries to explain the goals of treatment, the diversity of treatments becomes obvious, and it becomes all the more difficult to agree on common goals.Thus it is not astonishing that, up to now, consensus is more often reached on methodological issues (e.g. Newman 1983).

Maybe it is not even desirable to find superficial compromises that satisfy no one. It could turn out to be more productive for the further development of psychosomatic medicine and psychotherapy if we continue to have an open discussion on goals, on criteria of success, and on the chances of reaching these. This requires our skipping global statements in our discussions on the efficacy of psychotherapy and instead being more precise about which patients can be treated fairly successfully, under specific conditions, by using which kinds of therapeutic means (e.g., Kordy et al. 1983; Senf et al. 1984).

23.4.3 Evaluation of economic aspects

The investigation of the relation between established therapeutic methods and outcomes is a highly current topic in many western health care systems. How much of which kind of therapy is adequate to guarantee a fair chance to the patient to reach the desired goals? Up to now we have no well established answers to this kind of question. Research on these topics is developing in two directions: (a) cost-benefit and cost-effectiveness analysis (CBA/CEA), and (b) dose-effect models.

23.4.3.1 Cost-benefit and cost-effectiveness analysis

Precipitously rising costs of medical activities led to the call for data providing a rational basis to build a health service system that guarantees affordable high quality treatment: "the most pervasive myth within the clinical community is that costs are the business of business and not a clinical concern" (Newmann & Howard 1986). Cost-benefit and cost-effectiveness analysis (CBA/CEA) are rare and usually receive attention merely from the angle of health policy. Therapists perceive all these approaches as a substantial threat to their freedom to practice therapy as they see fit "to do the best possible for their patients"; -they are probably right from a micro-perspective focusing on individual patients. However, from the macro-perspective of the clinical institution or the health care system as a whole, their practice may well be sub-optimal.

Not only clinicians are reluctant to take this further step of uncovering myths about psychotherapy and psychosomatic medicine. Researchers too are afraid that they may jeopardize what they stand for if they do administratively directed research, particularly because the rationale for political decision-making is not always compatible with the scientific and methodological standards adhered to in empirical research.

There is no doubt that all people involved wish for maximally efficient psychotherapy, but clinicians as well as researchers hesitate to put this into monetary terms. This is not at all necessary : the point of interest in CBA/CEA is not just decreasing costs, but discovering how to utilize scarce therapeutic resources to achieve a maximum of returns. An example of the latter would be a study designed to investigate how best to distribute sessions over treatments in order to support the processes of psychic development. In this respect CBA/CEA offers an opportunity to apply and validate theories of psychotherapy, and is complementary to the more familiar areas of psychotherapy research.

What are costs, what is benefit? It has proved helpful to distinguish direct and indirect costs (see APA 1982; Yates & Newman 1980a):

1. Direct costs:
The most obvious costs of treatment obviously are direct costs. Each session has its price which seems easy to determine in outpatient therapy. Calculating the costs for supervision with more experienced colleagues presents some inherent difficulties. In the case of inpatient treatment, one has to decide whether to take the real costs for each patient or to work with an a priori averaged sum.

2. Indirect costs:
Besides paying the bills of their therapists, patients have to invest time for the treatment which often means time taken from the patient's working hours. During outpatient treatment this may not directly affect the costs; however, patients treated in psychotherapeutic hospitals, as quite often happens in Germany (Schepank & Tress 1988), cause considerable indirect costs to their firms. Furthermore, inpatient treatments (rarely outpatient treatments) also induce costs for the patients' families, even if some of the stresses are hard to quantify in monetary terms. Whether subsequent life events (e.g., divorce, loss of job, etc.) that may have some connections to the treatment should evaluated as costs is an open matter.

With regard to the benefits of treatments two distinctions are useful:

1. Saved costs:
The main momentum lies in the reduction of disease-related costs as psychological treatment may be cheaper than somatic treatments, and/or

psychological treatment as well reduces other complaints not directly related to the identified disorder. Furthermore the reduction of days off work which was one of the major results of the German outcome study (Dührssen 1962) and the further implications on the productivity index are major aspects of saved costs.

2. Gained benefits:
Psychotherapy may lead directly or indirectly to increased work productivity by enhancing creativity, assertiveness or just by more presence on the job; it also may increase the qualities of private life that are even more difficult to include in a financial evaluation procedure. Improvement of quality of life thus escapes the range of CBA, though most therapists would put it into the center of their goals for patients.

Thus in CBA/CEA different interests of different groups (patients and their relatives, insurance companies, employers) are to be distinguished, but do not have to be reconciled. In spite of its enormous importance there have been only few investigations to date (see Newmann & Howard 1986; Schlesinger et al. 1980; Yates & Newman 1980b). One of the most esteemed studies in this field is the "EAP Financial Impact Study" implemented by the well know air technology plant, McDonnell Douglas Corporation (The Almacan 1989). This study was started in 1985 to evaluate the McDonnell Douglas Employee Assistance Program (EAP) by a longitudinal analysis of costs associated with health care claims and absenteeism for a multi-year period before and after EAP-intervention. Included were persons who had undergone treatment under ICD classifications related to psychiatric disorders, substance abuse or alcoholism.

"We did not try to measure the financial impact of factors which cannot be objectively and concretely measured. 'Soft-dollar' items such as productivity, job-performance level, replacement labor costs and other subjective data were ignored. We wanted the most conservative possible study outcome. Therefore, the only two variables that were measured were actual health claims costs for the employee and absenteeism. Absenteeism costs were determined by the individual's daily income, extrapolated from either hourly base rates or annual salaried base compensation, then multiplied by the number of days lost." (The Almacan, 1989).

The study demonstrated a tremendous gain:

"A final cost-offset ratio (investment-to-savings) 4:1; a four-year dollar savings for the EAP population of $5.1 million. The $5.1 million savings

include the value of working days saved by the employee, which is $ 762,526. This, too, is a conservative figure because it does not include replacement labor costs, hiring, training, etc., and losses due to normal attribution were factored in." (The Almacan, 1989)

Table 1 gives more detailed information on the results. Of special importance is that not only the medical claim costs for the EAP decreased, but also the per-case family medical claim costs.

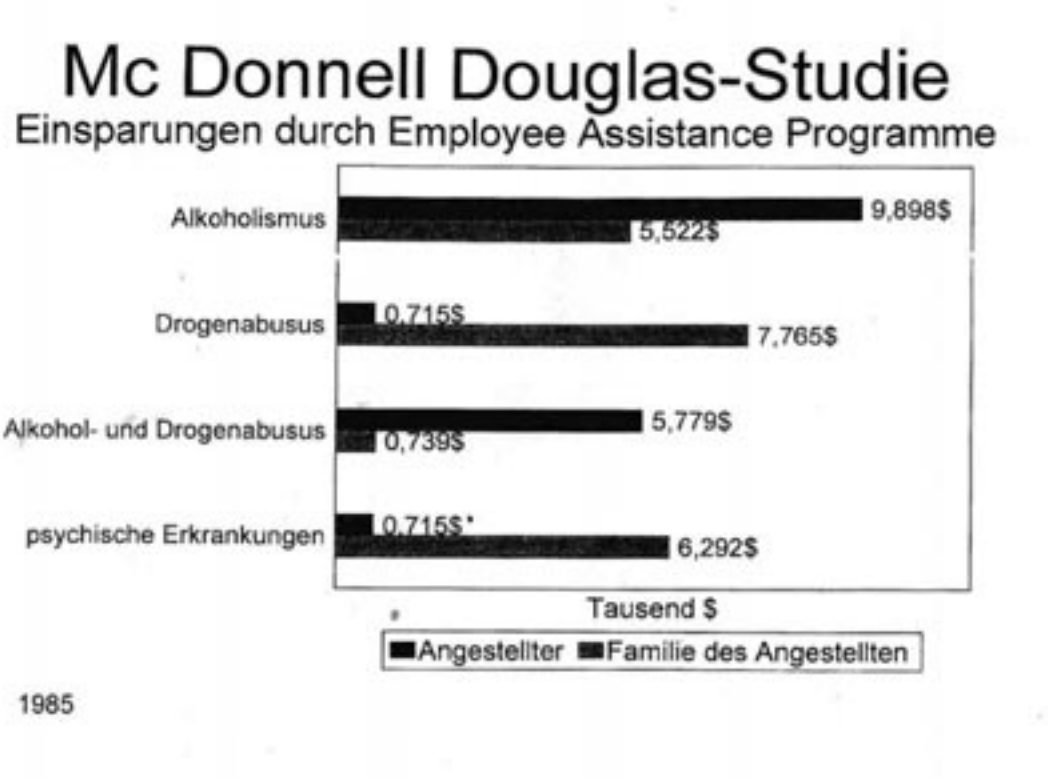

Table 1: Excess Cost (The Almacan, 1989)

Employee alcoholism
-> The average per-case employee medical claim cost for EAP clients was $9,898 below that of non-EAP-clients.
-> The average per-case family medical claim cost for EAP clients was $5,522 below that of non-EAP-clients.
Employee Drug Diagnosis
-> The average per-case employee medical claim cost for EAP clients was $715 below that of non-EAP-clients.
-> The average per-case family medical claim cost for EAP clients was $7,765 below that of non-EAP-clients.
Employee mixed abuse diagnosis
-> The average per-case employee medical claim cost for EAP clients was $5,779 below that of non-EAP-clients.
-> The average per-case family medical claim cost for EAP clients was $739 below that of non-EAP-clients.
Employee mixed psychiatric conditions
-> The average per-case employee medical claim cost for EAP clients was $715 below that of non-EAP-clients.

-> The average per-case family medical claim cost for EAP clients was $6,292 below that of non-EAP-clients.

23.4.3.2 Dose-effect models

While presenting the Generic Model of Psychotherapy (23.2.3) we already referred to the possible linkage of micro-outcomes to macro-outcomes. To test this idea one has to investigate the relationship between the investment of therapeutic means and the outcome of therapy. There are qualitative and quantitative aspects to what constitutes 'therapeutic means'. Up to now only the quantitative aspects have been dealt with explicitly.

Howard et al. (1986) proposed probit analysis to model the dose-effect relationship, as is often done in medical research. The essence of this model is that a best-fit line is estimated for success rate and the log-transformed dosage. "This log transformation reflects the fact that, as treatment progresses, more and more sessions are needed to obtain 'just noticeable differences' in percentage of patients improved" (this and other quotations from Howard et al., 1986). The authors found 15 samples suitable for a dose-effect-analysis. The samples include a total of 2,431 patients treated in individual psychotherapy (usually once a week). "These samples represented a variety of outpatients, therapists, therapeutic orientations, treatment settings, and outcome criteria. In general, the patients in these samples were diagnosed as 'neurotic' (depressive or anxiety neurotics) with relatively small proportions diagnosed as personality disordered or psychotic." Each sample was submitted to a probit analysis separately. The resulting 15 response functions showed relatively similar pictures despite the differences between the samples: the result indicated "that by eight sessions, 48%-58% of patients would be expected to have measurably improved. About 75% of patients should have shown measurable improvements by the end of six months of once--weekly psychotherapy (26 sessions) and about 85% by the end of a year of treatment." For a more detailed analysis, the authors grouped the patients according to their diagnoses into three subsamples (depression, anxiety, borderline-psychotic). The probit analysis demonstrated that "depressive patients began responding at the lowest dosages of psychotherapy, anxiety neurotics at a somewhat higher dosage, and borderline patients at a still higher dosage."

Using a large Ulm sample of 1700 cases and setting up a parallel study to the Howard et al. (1986) one, Kächele (1990b) investigated the relationship

between length of treatments and percentage of terminated treatments and could support the essential findings of the dosage model, i.e. the log linear relationship.
Supplementing the data analysis of the Heidelberg Follow-Up Project (Bräutigam et al. 1980; Kordy et al. 1983, Kordy et al. , (1989) compared the 'dose-effect' relationship for patients with psychosomatic illnesses or chronic bodily dysfunctions and patients with neurotic symptoms or non-chronic bodily dysfunctions. As indicators for dosage, they took the total number of sessions and the duration of treatment. The plots of success-rates vs. number of sessions, and vs. treatment duration, had the typical shape of dose-effect curves. For both groups of patients the curves were very similar, differing only in two details: (1) the success rates for patients with psychosomatic illnesses or chronic bodily complaints were noticeably lower than those for the comparison group; (2) there was a slight tendency for patients suffering from psychosomatic illnesses or chronic bodily dysfunctions to respond later. For those patients, a treatment duration of up to 3.5 years may be associated with increased success rates, whereas the comparison group (patients with neurotic symptoms or non-chronic bodily complaints) showed no additional gain for treatment duration of more than 2.5 years.

Even if such investigations of the economic aspects of psychosomatic and psychotherapeutic care have no direct impact on the individual therapist's strategy to care for his/her patients, they are necessary in order to optimize patient care from the point of view of a macro-perspective on the health care system. The National Care Utilization and Expenditure Survey (NMCUES 1980-81) reported that 44% of persons consulting a health specialist had fewer than four sessions and used 6.7% of the expenses. In contrast, 16.2% of the patients made more than 24 visits and used 57.4% of the resources (Howard et al., 1992). Investigations of these phenomena have far-reaching clinical implications because they correct the clinician's illusion (Vessey et al., 1994) that he or she is treating a representative sample of patients. Epidemiological studies of the incidence and prevalence of psychosomatic or neurotic illnesses, of bodily dysfunctions or emotional disturbances, give an estimate of the need for services; the investigation of therapeutic practices yields an estimate of available resources to meet those needs; and, studies of the patterns of service utilization identify the constituencies served by the delivery system (Howard et al., 1992).

23.5. Summary and desiderata

This chapter outlines the main developments in outcome research in psychotherapy and psychosomatic medicine. As active participants in various areas of psychotherapy research we presented characteristic studies that illustrate directions in this kind of research, mentioned important new methodological developments, and underscored research findings that are relevant for the present and future position of psychotherapy and psychosomatic medicine.

The focus of our contribution is more on psychotherapy than on psychosomatic medicine for several reasons. (a) A not inconsiderable part of this handbook is already devoted to specific psychosomatic disorders and to somatic disorders with psychological consequences and their treatment. Those chapters describe current thinking regarding the usefulness and potential applicability of psychotherapy for those patients. Therefore, our main goal is to illustrate the strategy and programmatic content of outcome research in order to facilitate the readers' integration of and orientation towards this kind of research. (b) In addition, our choice of focus on psychotherapy is itself an answer (intended or not) to the fundamental conflict, that is associated with the pair of concepts "psychotherapy vs. psychosomatic medicine". To be sure, the separation of psychotherapy and psychosomatic medicine is artificial since each is related to the other. They, however, emphasize different perspectives. Psychotherapy, more than psychosomatic medicine, represents the technical aspects of treatment and is therefore properly assessed in terms of outcome results (e.g. success or failure rates). As the treatment of choice for certain illnesses and as one of several possible treatments for other illnesses, psychotherapy competes with other medical treatment techniques. Therefore, psychotherapy is confronted with the same questions that are traditional in medicine. As part of the medical health service delivery system, psychotherapy no longer has a special place regarding questions of outcome; however, with regard to the content of possible answers there is considerable leeway. An alternative philosophical view, which psychosomatic medicine claims to be, can shape values and goals of treatment. Outcome criteria from a psychosomatic point of view will enrich outcome research considerably. However, there is still a major deficit to work out. From this point of view there are some promising goals for research, namely: to model the relationship between somatic and psychic developments, to model the psychosomatic view of the clinical course of illnesses and growth of well-beeing (even if it is at present only at a symptom level), and to formulate them in a way that makes empirical

research possible.

Informed readers will certainly note the absence of studies and issues concerning outcome research which they regard as important. That is, in part, a result of our personal selection and our limited knowledge. To a not inconsiderable degree, it also has something to do with the fact that these fields have only a few studies which meet minimal methodological standards. Naturally, that is particularly true for relatively new issues. However, there are also traditional fields of psychosomatic medicine and psychotherapeutic clinical practice which are scarcely ready for systematic empirical outcome research. One of the typical examples is "in-patient psychotherapy"; some of the unsolved problems will be sketched in the following section.

Inpatient psychotherapy:

Inpatient psychotherapy is more than just psychotherapy in a hospital. Its general goals are based on the assumption that a convenient composition of a variety of therapeutic factors in a suitable structured institutional setting will allow the treatment of those patients who when treated in an outpatient setting are said to have little chances of success. Dependent on therapists' courage, clinical experience and creativity, and given environmental conditions, new treatments programs are developed for 'difficult' patients. This promotes local solutions and prevents standardization. The sheer amount and diversity of psychotherapeutic and psychosomatic hospitals to be found all over Germany as a well established part of the 'psycho' health care system may come as a surprise to the Anglo-American reader. In Germany almost 40 % of all patients receive their psychotherapy as inpatients (Meyer et al 1991). Inpatient psychotherapy may be characterized as "psychotherapy round the clock in the form of various well organized, coordinated and respectively theoretically justifiable indicated and individually dosed (verbal and non-verbal) intervention techniques" (Schepank & Tress 1988). The majority of inpatient psychotherapy programs share four basic modules:

A Individual and/or group psychotherapy
B Non-verbal treatments (e.g. art / music therapy, body oriented therapy, relaxation therapy)
C Therapeutic use of the ward and its therapeutic community
D Architectural/ technical/organizational structure

This inherent complexity of inpatient psychotherapy challenges conventional empirical research. Researchers are slow to develop adequate methodological

concepts and to raise probing questions. Inpatient psychotherapy still awaits an empirically based clinical theory which will allow justifiable decisions concerning the indication (admission to which kind of treatment) and the spending of diverse therapeutic resources. These demands are not met yet by available empirical research.

Though there is a considerable number of reports that claim the suitability of inpatient psychotherapy for certain groups of patients, the empirical basis for justifiable clinical decisions is still meager. Especially lacking are evaluation studies that demonstrate the advantages of systematically composed treatment programs found in inpatient psychotherapy as opposed to the simple structured out-patient options.

A research group at the Menninger Clinic (Colson et al. 1988; see also Kordy et al. 1990) discussed three possible approaches for research into the complexities of inpatient psychotherapies:

a) an organization perspective: A "shotgun" approach in which many treatments and setting characteristics are measured, e.g. the degree of organization on the ward, how many staff members are available, how many staff shifts there are, the existence of separate TV rooms etc
b) an objective dose-approach: To describe or quantify in a relatively objective manner a few conventional treatment variables, such as the length of inpatient stay, types of medications used or number of sessions, the patients take part in their various kinds of treatment etc
c) a subjective dose-approach: to assess the therapist´s or patient´s experience of treatment.

There may be a variety of reasons why inpatient psychotherapy is less often the target of systematic research activity; this may be partially due to the complexity of the subject (see Goffman 1964). A shared structural variable of these social institutions to take care of, or to induce changes in patients is the mixture of the helping professions involved . Some members of the staff are designated psychotherapists, but most work as auxiliary therapists (music- , painting- social therapists, nurses etc). It may be true that ordinary psychotherapy of the standard variation also has neglected to analyze systematically contextual variables ("how often did your patient talk to your secretary and did she find her to be a helpful and warm human being?)

Therefore, inpatient psychotherapy should be the target of more systematized

research because it may turn out that we may learn new things about micro-socio-cultural embedding of diseases - their interactional staging - by studying those aspects of therapeutic communication that misleadingly are called non-verbal. As all disease processes are anchored in basic biological processes we have to recognize that we do not know much about the elementary signal exchange and the impact of artificially manipulated environments on the course of diseases. Except for a very special longterm clinical investigation with psychotic patients on the non-human environment (Searles 1960) we have no adaequate conceptions at hand for those processes of semiotization that finally lead to full symbolization; the empirical studies on the role of diverse semiotic layerings shaping the psychotherapeutic discourse on the medical ward round point to the usefulness of complex linguistic and semiotic investigations (Bliesener & Köhle 1986; Köhle & Raspe 1982; Köhle et al. 1980)

Inpatient psychotherapy treatment settings provide options for new concepts, new methods and findings. The so-called adjunct methods that are despised by the established schools may have touched on truths that have escaped systematic research up to now (Kächele & Scheytt 1990).

Taking into consideration that in the very most cases psychotherapy (i.e. individual or group psychotherapy) covers only a small portion of the probably active ingredients of an inpatient treatment program the relevance of such a systematic research gap for inpatient psychotherapy becomes obvious. There is an urgent need for a serious research initiative that is focused on questions ssuch as:

- For which patients does inpatient psychotherapy promise specific advantages (in comparison to outpatient treatment)?
- How much do individual components of inpatient psychotherapy programs (especially the so-called nonverbal therapies) contribute to the treatment effects? For which patients?
- How much do environmental factors ('milieu factors') influence the therapeutic outcome?

Besides discovering inpatient psychotherapy as a research option we may expand the notion of inpatient psychotherapy to the world of the hospital where all patients are inpatients treated in more or less supportive psychological surroundings. If we think of patients in a situation of a bone-

marrow transplant we may like to know more about the defenses and coping resources to better help them to adjust to the life threating treatment method (Tschuschke et al. 1994). Thus we also have to ask the following question:

- what role do certain factors which are acknowledged as relevant in empirical research on in- and out-patient psychotherapy do play in the context of clinical medicine?

We strongly feel that psychotherapy process and outcome research should shape not only psychosomatic medicine but should also support its "widening scope" to provide empirical support for the relevance of motives and thoughts in all human disease.

Outcome research as described here should thus link up with liaison and consultation work. Though a beginning has been made, we must emphasize that there is a substantial lack of evaluative research in the area of the possible psychological impact on somatic medicine. It is time to prepare this field for serious and adequately conceptualized outcome research (i.e. to formulate a research program, to develop classification systems, to create specific instruments etc) and to achieve consensus among the scientific community that these fields are worth the personal efforts needed.

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[1]summarized by Bergin´s 1971 re-analysis of Eysenck's review.
[2]five books were published (Appelbaum 1977; Kernberg et al. 1972; Sargent et al. 1968; Voth & Orth 1973; Wallerstein 1986).
[3]The deficits of outcome research for psychosomatic medicine have also been identified by the European Community, which issued an intiative that we feel is important (COST-Report 329/1991).