Vol. 2, No. 2 Spring 1994

Managed Care Quarterly

Behavioral Health Care

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Managed Care Quarterly 2:2, Spring 1994

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The successful application of medical offset in program planning and in clinical delivery

Medical cost offset was discovered in the health maintenance organization (HMO) setting over 35 years ago and was used not only to justify the earliest instances of the inclusion of mental health treatment as a benefit, but also was used in program design and development. With the new emphasis on outcomes research, medical cost offset remains a viable method of conducting nonintrusive studies of efficacy, efficiency, and quality. Through the use of the research design described, an early HMO delivery system developed 68 focused, target behavioral interventions that years later became the basis for emerging managed mental health care. Key words: *medical offset programs/planning*

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SEVERAL DECADES ago, when I was in psychoanalytic training, I had an encounter with my supervisor, the significance of which was not to impact for a number of years. I was reporting work with a personality disorder patient whose obnoxiousness did not seem to ameliorate with treatment. The training analyst, who was internationally renowned, stated wryly: "If you take a shmuck and analyze him, you end up with a psychoanalyzed shmuck." I was taken aback. The idea that treatment could go on for years with the patient not having a clue as to how to behave as a grown-up (this was long before Woody Allen) was not something I was prepared to accept at that time. Like many analysands I was a convert: psychotherapy was for the inevitable benefit of all.

Eventually I returned to San Francisco and began practicing psychoanalytically oriented psychotherapy, complete with a custom-upholstered couch patterned from a photograph of that which belonged to Freud. It was only a few years before I found myself dissatisfied. Since at that time no health insurance paid for psychotherapy, practitioners were forced to specialize in the diseases of the rich—principally female frigidity and male obsessions. I also realized that I had so honed my craft that by a judiciously placed interpretation I could prevent any patient who was considering termination from doing so. This precipitated a crisis in my life, for I wondered whether I was doing so for the benefit of my patient, or for the benefit of myself. One could always rationalize another six months of therapy on the basis of "self-actualization," a term that to this day has never been adequately defined.

The recollection is still vivid as to how my crisis culminated as I was falling asleep one night. While in the hypnogogic state, I was reviewing the case of an obsessional man who was typical of my caseload. His wife was freezing fresh peaches and ran out of aluminum foil. She sent him to the supermarket for more, where he

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obsessed for 30 minutes whether he should buy Reynolds Wrap or Kaiser Foil. Not being able to decide, he returned home to ask his wife which he should buy. She exploded into anger, for by this time her peeled, sliced peaches had turned brown. By accepting his obsessional behavior as the problem, the wife could join her husband in denying his intense passive-aggressive expressions of anger toward her. Still half asleep, I wished I could be doing something important, like Doctor Gall who invented the Gall Bladder. The awfulness of this free association jolted me into total wakefulness. I was burned out.

Most psychoanalysts get discouraged with the results of their treatment efforts by midlife, even Freud himself. They deny their burn-out by arranging to do very little actual treatment, while crafting a successful career writing, teaching, training, and consulting. This was of only cold comfort, for I was discouraged at 35! What was I to do?

Fortunately for me, Kaiser Permanente Health Plan was advertising for a chief psychologist who would help create a program to address the 60 percent of physician visits that the nation's prototype of the modern health maintenance organization (HMO) found were primarily responding to somaticized stress rather than physical disease. Sidney Garfield, the physician founder of the Kaiser Permanente Medical Group, conceptualized triaging the somaticizer from the medical system into a psychological system where the cause of the emotional distress would be addressed and ameliorated, thus reducing the overload on the medical system. Research already conducted had demonstrated that repeated visits in which the physician reassured the patient only tended to increase the patient's determination that he or she had a physical disease that in time and with repeated tests would be discovered.[1]

In accepting the assignment, I embarked on 25 years of intensive HMO clinical practice and even more intensive outcomes research. Morris Collen, cofounder of the Kaiser Permanente Medical Group and electrical engineer turned physician, made it clear that the effectiveness of any program must be subjected to the most meticulous scientific scrutiny. My predecessor, Timothy Leary, who later became known as the "high priest of LSD," had failed to engage in outcomes research and was discharged. It was made clear that the type of "verification" in vogue among psychotherapists which quoted authorities such as Freud, Jung, and Adler was not acceptable. Unfortunately, the practice of relying on gurus for efficacy has not greatly altered, only the cast of characters quoted has changed. To name only a few among the many gurus, psychotherapists rely upon Haley, Watzlawick, Erickson, Goulding, Kernberg, Sifneos, Masterson, and occasionally (much to my dismay) on Cummings to "prove" the efficacy of their interventions.

Since the mission of the newly formed mental health benefit was to triage the somaticizer out of the medical/surgical system, reduction in medical utilization would be a direct measure of success. Thus began a type of outcomes research that subsequently came to be known in the literature as the "medical offset effect." These early studies will be summarized here, for it is the purpose of this article to discuss an application of medical offset in programmatic planning that has never before been reported in the clinical and scientific literature.

The findings indicated that persons in emotional distress were significantly higher users of both inpatient facilities (hospitalization) and outpatient medical facilities than the health plan average.

THE EFFECT OF PSYCHOTHERAPY ON MEDICAL UTILIZATION

In the first of a series of investigations into the relationship between psychological services and medical utilization in a prepaid health plan setting, Follette and Cummings compared the number and type of medical services sought before and after the intervention of psychotherapy for a large group of randomly selected patients.[2,3] The outpatient and inpatient medical utilization by these patients for the year immediately before their initial interview in the Kaiser Permanente Department of Psychotherapy, as well as for the five years following that intervention, was studied for three groups of psychotherapy patients (one interview only, brief therapy with a mean of 6.2 interviews, and long-term therapy with a mean of 33.9 interviews) and a "control" group of matched patients who demonstrated similar criteria of distress but who were not, in the six years under study, seen in psychotherapy.

The findings indicated that (1) persons in emotional distress were significantly higher users of both inpatient facilities (hospitalization) and outpatient medical facilities than the health plan average; (2) there were significant declines in medical utilization by those emotionally distressed individuals who received psychotherapy,

compared to that of the "control" group of matched patients; **(3) these declines remained constant during the five years following the termination of psychotherapy; (4) the most significant declines occurred in the second year after the initial interview, and those patients receiving one session only or brief psychotherapy (two to eight sessions) did not require additional psychotherapy to maintain the lower level of medical utili-zation for five years;** and (5) patients seen two years or more in continuous psychotherapy demonstrated no overall decline in total outpatient utilization (inasmuch as psychotherapy visits tended to supplant medical visits). However, even for this group oflong-term therapy patients, there was a significant decline in inpatient utilization (hospitalization), from an initial rate several times that of the health plan average to a level compa-rable to that of the general adult health plan population. Thus, even long-term therapy is cost effective in reduc-ing medical utilization if it is applied only to those patients thatneed and should receivelong-term therapy.

In another study, Cummings and Follette sought to answer, in an eighth-year telephone follow-up, whether the results described previously were a therapeutic effect, were the consequences of extraneous factors, or were a deleterious effect.[4] It was hypothesized that, if better understanding of the problem had occurred in the psychotherapeutic sessions, the patient would recall the actual problem rather than the presenting symptom and would have lost the presenting symptom and coped more effectively with the real problem. The results suggest that the reduction in medical utilization was the consequence of resolving the emotional distress that was being reflected in the symptoms and in the doctor's visits. The modal patient in this eighth-year follow-up may be described as follows: She or he denied ever having consulted a physician for the symptoms for which the referral was originally made. Rather, the actual problem discussed with the psychotherapist was recalled as the reason for the psychotherapy visit, and although the problem had been resolved, this resolution was attributed to the patient's own efforts, and no credit was given the psychotherapist. These results confirm that the reduction in medical utilization reflected a diminution in the emotional distress that had been expressed in symptoms presented to the physician.

Length of treatment

Although they demonstrated in this study that sav-ings in medical services do offset the cost of providing psychotherapy, Cummings and Follette insisted that the services provided must also be therapeutic in that they reduce the patient's emotional distress. Both the cost savings and the therapeutic effectiveness demonstrated in the Kaiser Permanente studies were attributed by the authors to the therapists' expectations that emotional distress could be alleviated by brief, active psychotherapy. Such therapy, as Malan pointed out, involves the analysis of transference and resistance and the uncovering of unconscious conflicts and has all the characteristics of long-term therapy, except length.[5] Given this orientation, it was found over a five-year period that 84.6 percent of the patients seen in psychotherapy chose to come for 15 sessions or fewer (with a mean of 8.6). Rather than regarding these patients as "dropouts" from treatment, it was found on follow-up that they had achieved a satisfactory state of emotional well-being that had continued into the eighth year after the termination of therapy. Another 10.1 percent of the patients were in moderate-term therapy with a mean of 19.2 sessions, a figure that would probably be regarded as short-term in many traditional clinics. Finally, 5.3 percent of the patients were found to be "interminable," in that, once they had begun psychotherapy, they had continued, seemingly with no indication of termination.

The "interminable" patient

In another study, Cummings addressed the problem of the "interminable" patient, for whom treatment is neither cost effective nor therapeutically effective.[6] The concept that some persons are so emotionally crippled that they may have to be maintained for many years or for life was not satisfactory, for if five percent of all patients entering psychotherapy are "interminable," within a few years a program will be hampered by a monolithic caseload, a possibility that has become a fact in many public clinics where psychotherapy is offered at nominal or no cost.

It was originally hypothesized that these "interminable" patients required more intensive intervention, and the frequency of psychotherapy visits was doubled for one experimental group, tripled for another experimental group, and held constant for the control group. Surprisingly, the cost-therapeutic effectiveness ratios deteriorated in direct proportion to the increased intensity; that is, medical utilization increased, and the patients manifested greater emotional distress. It was only by reversing the process and seeing these patients at spaced intervals of once every two or three months that the desired cost-therapeutic effect was obtained. These results are surprising in that they are contrary to traditionally held notions that more therapy is better, but they demonstrate the need for ongoing research, pro-

gram evaluation, and innovation if psychotherapy is going to be made available to everyone as needed.

Cost savings

The Kaiser Permanente findings regarding the offsetting of medical-cost savings by providing psychological services have been replicated by others.[7,8] In fact, such findings have been replicated in over 20 widely varied health care delivery systems.[9] Even in the most methodologically rigorous review of the literature on the relationship between the provision of psychotherapy and medical utilization,[10] the "best estimate" of cost savings is seen to range between 0 percent and 24 percent, with the cost savings increasing as the interventions are tailored to the effective treatment of stress.

In summarizing the 20 years of Kaiser Permanente experience, Cummings and VandenBos concluded that not only is outcomes research useful in programmatic planning, but no comprehensive health plan can afford to be without an effective psychotherapy benefit.[11] The Kaiser Health Plan went from regarding psychotherapy as an exclusion, to becoming the first large-scale health plan to include psychotherapy as an integral part of its benefit structure. In fact, the absence of a psychotherapy benefit leaves the patient little alternative but to translate stress into physical symptoms that will command the attention of a physician. Even the presence of a copayment for psychotherapy when none exists for medical care will incent the patient toward somaticizing.

DEVELOPING TARGETED, FOCUSED INTERVENTIONS BY USE OF MEDICAL OFFSET RESEARCH

It is not atypical for practitioners to narrowly practice as they were trained, resisting change and evolution. This is more problematic in psychotherapy than in medical practice because psychotherapy has developed few specific treatments for specific conditions. If a practitioner was trained as a Freudian, the couch therapy is applied whether the problem is marital, occupational, or chemical dependency. Should the therapist be a behaviorist, desensitization and behavioral modification become the primary interventions, whatever the condition treated. It is logical to assume that certain conditions will more likely respond to certain types of interventions, while being resistant to others. Discovering these specifics would suggest that psychotherapy could be much more effective and efficient.

Cummings and his colleagues at Kaiser Permanente intuitively observed that certain conditions seemed to respond better to dynamically oriented therapy, others to behavior therapy, and still others to systems approaches. And within the school of therapy, some conditions were more effectively treated in individual therapy, others in group therapy, and still others in psychoeducational programs. They tentatively accepted the premise that all schools and modalities had truth, but none had ultimate truth. The optimal specific could well be an admixture of several approaches, and they set about to test this hypothesis through outcomes research utilizating medical offset as the criterion of efficacy. Since in society persons under stress somaticize their stress, a greater reduction of medical utilization in an aggregate group receiving one type of psychotherapy intervention over another aggregate group receiving a different intervention would be a measure of the effectiveness of the intervention.

The cost-therapeutic effectiveness ratio, also known as the efficiency-effectiveness ratio, was derived by dividing the average (mean) medical utilization for the entire group for the year prior to the intervention by the average (mean) medical utilization plus average (mean) psychotherapy visits for that same group in the year after the intervention:

$$r = \frac{\text{Mean (medical utilization year before)}}{\text{Mean (medical utilization year after)} + \text{Mean (psychotherapy sessions)}}$$

Differentially weighting by cost the various kinds of medical utilization, such as giving an outpatient visit a value of 1 and a day of hospitalization a value of 10, only complicated our computations and neither added precision nor altered outcome. But weighting individual therapy, group therapy, and psychoeducational programs did add precision. The formula adopted was based on psychotherapist time to accomplish a unit. Thus, individual therapy (1 therapist with 1 patient for 45 minutes) received a value of 1, while group therapy (1 therapist with 8 patients for 90 minutes) received a value of .25, and a psychoeducational group (1 therapist with 12 patients for 90 minutes) was given a value of .08. To clarify further, 10 sessions of individual therapy equals 10, the same number of group therapy sessions equals 2.5, and finally 10 sessions of psychoeducational programming yield less than 1. Emergency department visits were weighted 2, which means that 10 emergency department visits had a total value of 20.

To illustrate from actual research, a group of 83 borderline personality disorder patients was placed in individual psychotherapy, with the result that medical utilization declined slightly, but at an enormous

expenditure of both individual sessions and emergency room visits:

$$r = \frac{163}{141+68} = .8$$

The ratio is low, indicating that interventions were neither therapeutically efficient (reduction in medical utilization) nor cost efficient (number of mental health units). The staff over time created a focused set of interventions within individual therapy with some improvement in cost efficiency but little impact on therapeutic effectiveness with another group of now 73 borderline personality patients:

$$r = \frac{167}{148+51} = .7$$

The overall effectiveness-efficiency ratio actually declined. With another population of 76 patients suffering from borderline personality disorder, a great deal of care and effort was expended in designing a 20-session group therapy, augmented with 10 sessions of individual therapy, and then with monthly follow-up sessions. Emergency department visits were virtually eliminated, and the ratio rose dramatically:

$$r = \frac{166}{27+31} = 2.8$$

Learning a great deal from this group of patients, we sharpened the group therapy to 15 group therapy sessions, followed by 10 psychoeducational sessions, and with subsequent monthly follow-up individual sessions, yielding a ratio and a program that was adopted as both effective and efficient:

$$r = \frac{171}{11+12} = 7.8$$

The research team continued to experiment with honing the program even further, but the work with borderline personality disorder, a category of resistant and highly acting out patients, never achieved the ideal ratio of 9.0 or higher which became the goal or standard. In this way, using medical offset, there were designed 68 focused, targeted interventions for 68 psychological/psychiatric conditions that became the methodology in what was termed brief, intermittent psychotherapy throughout the life cycle,[12] an approach that concentrates on solving the problem in the "here and now" while also giving the patient a greater repertoire of responses to stress. These findings were the backbone of the clinical training and service delivery early at Kaiser Permanente and later at American Biodyne.[13]

FUTURE POSSIBILITIES

Medical offset is being employed in a variety of ways that were never envisaged by the original researchers. In a unique application recently announced by Missouri Blue Cross/Blue Shield, "closer case management will be imposed on the approximately 5% of the members who account for 65% of claims dollars."[14(p.8)] It is traditional for case managers to handle patients with catastrophic illness or injury, but this plan will go considerably beyond that and impose treatment that is an alternative in a variety of conditions. For example, counseling to improve compliance with medical regimen may be imposed on a diabetic, or an overweight patient complaining of back pain may be required to participate in a weight loss program before surgery is approved. A nurse who suggests counseling alternatives and who also approves all outlays throughout the period of care is expected to reduce unnecessary expenditures and improve effectiveness.

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Medical offset as a type of outcomes research has been employed effectively in both programmatic planning and the development of clinical service models for over 35 years. It has conclusively been demonstrated that no health plan is complete without a comprehensive mental health benefit, the absence of which will result in overutilization of medical/surgical facilities by persons who are somaticizing stress. The Bethesda Consensus Conference on Medical Offset concluded that medical offset can be used not only to improve delivery of services in mental health, but also that improved services subsequently result in greater medical offset (defined as savings in medical/surgical costs over and above the cost of providing the mental health services).[15]

There are resistances to the use of medical offset, the principal one being that most health plans do not collect data in such a way that renders medical offset research possible. Another resistance stems from the fact that medical offset research is necessarily tested against contrasting groups (as opposed to control groups) and is retrospective in nature. To do otherwise would require a control group for whom services are denied in the interest of research. This criticism has in large measure been answered by the Hawaii-HCFA-Medicaid research, a seven-year prospective medical offset study reported elsewhere in this issue of the *Managed Care Quarterly*.

Much resistance stems from a reluctance to subject one's service delivery system to the intense criteria

represented in the medical offset effect. It is easier and safer to do quick patient satisfaction questionnaires whose halo effect will more likely favor the delivery system being studied.

In spite of resistances from many within the health industry and the public policy arena, employers who purchase health insurance know of medical offset and express confidence in the ability of mental health interventions to impact on total health costs. In a unique and courageous published study of consumer attitudes of its own mental health/chemical dependency system, Harvard Community Health Plan reported that "employers believed that expanded mental health coverage would reduce inpatient utilization and decrease overall health care costs."[16(p.11)]

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