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Feature Articles

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This professional peer reviewed publication and data archive is dedicated to the enhancement of program development, evaluation and innovations in mental health and substance abuse treatment programs worldwide. Its goal is to provide a public forum for practitioners, consumers and researchers to address the multiple service needs of patients and families and help determine what works, for whom under a variety of circumstances.

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Pet Therapy Uses with Geriatric Adults

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Abstract

This paper is about the geriatric population of patients that had Pet Therapy and those that did not. The purpose of this paper to reject the null hypothesis and to prove the alternative hypothesis as correct, by showing how Pet assisted therapy is used with geriactric participants with the rehabilatation process : in the length of stay , physical and psychologival attitudes.. This study is based on one hundred transitional care unit patients that were observed over a three month period. The patients are a geriactric age group over 65 plus. The diagnosis looked at are orthopedic, hypertension, aids, dementia and other medical conditios. The scope and delimitations of the study will be represented by a geriactric age group characterized by four disease srates. The gender and the ethnicity of the participants were not restricted.

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Chapter I Background of the Problem

Introduction

Pet Assisted Therapy (Pet) is the utilization of animals as a therapeutic modality to facilitate healing and rehabilitation of patients with acute or chronic aliments (Curran, 1996). Pet assisted therapy covers a wide range of activities, from a simple visit to a patient to provide company, through providing stimulation and muscle-coordination retraining to a stroke victim, or independent living assistant to the physically handicapped. The mere presence of a dog may facilitate interactions with the non-communicative patient, assist in recall of memories and help sequence temporal events in patients with head injuries or chronic degenerative diseases of the brain such as Alzheimer's disease, and teach appropriate behavior patterns in those with emotional disabilities (Goldman, 1990).

Many studies have been developed to measure aspects of human interactions with pets (Katcher, Friedman, Goodman & Goodman, 1988; Millot & Filatre, 1986; Stallones, Marx, & Johnson 1990) have demonstrated validity and reliability. Pets may provide unquestioning and constant sources of affection. Pets may teach patients people to enhance the self-esteem of the individual and may assist people in socializing with one another (Zimmer, 1996). Despite proven benefits of Pet Assisted Therapy, there are many obstacles. The local and state boards of health facilities were causing problems because of the risk of infection from animal to patient (Wise, 1995). Additional problems include the temperament of the animal to be able to be steady in a stressful environment and not to be too distracted by various tubes and machines that may surround the patient (Hume, 1996). The other problem is proper animal training and assurance that there will be enough veterinarians to guarantee the pert has a clean bill of health (Perelle & Granville, 1991).

Statement of Problem
In the past two decades Pet Assisted Therapy has been used successfully with several populations: coronary patients (Friedman, Lynch, & Thomas, 1979), hospitalized psychiatric patients (Corson & Corson, 1981), emotionally disturbed (George, 1988), cancer patients, (Lee, 1984) and geriatric patients (Messent, 1986). Several studies report positive social behavior changes after introducing an animal into the nursing home environment or hospital. (Corson & Corson, 1981) found a decrease in patient's sense of loneliness and social withdrawal and an increase in patient's positive interactions with staff when dogs were brought to a nursing home or hospital.

The Australian Joint Advisory Committee on Pets in Society conducted a six-month study of the interaction of 60 nursing home residents with a dog. Using pre and posttest questionnaires they found positive behavior changes in interest and conversation, and an increase in participation in activities of daily living. (Salmon, Hogarth-Scott & Lavelle, 1982).
Studies show that pets can aid relaxation, lower one's blood pressure, promote heal and prolong life. They help us to unwind, by the affection they give. Stress and anxiety is eased. Many of our medical providers know that if you suffer from heart disease or stress, a cuddle a day by a pet may keep the doctor away (Robertson, 1990).

With the addition of a well-trained handler/health care worker, the mere presence of a dog may facilitate therapeutic intervention with the non-communicative patient, assist in recall of memories and help sequence temporal events in patients with head injuries or chronic degenerative diseases of the brain such as Alzheimer's disease, and teach appropriate behavior patterns to those with emotional disabilities.(Brickel, 1991).

Research Question
Pet therapy will result in shorter length of stay in institutions, improve physical outcomes, and enhance mental health attitudes in geriatric rehabilitation patients. The purpose of this study was to determine the outcome of geriatric patients that received Pet Therapy or do not receive Pet Therapy as part of their rehabilitation.

Statement of Hypothesis
The research objective of this study is to test the following null hypothesis: There is no difference in physical or psychological outcomes of geriatric patients that receive Pet Therapy and those that do not receive Pet Therapy with their rehabilitation. The data is expected to support the rejection of the null hypothesis and acceptance of the alternative hypothesis: There is a relationship between the introduction of an animal, and a patients' resulting mental health status in geriatric patients and psychological well-being that received Pet Assisted Therapy with their rehabilitation and those that did not.

Definition of Terms
The dependent variables were a) geriatric patient's reaction to therapy and the therapist when a pet was used in therapy b) patient's progress after 12 weeks with the use of a pet during their therapy. The independent variable is a) study done in a transitional care unit using pets over a 12 week period, using a observational visual questionnaire to measure the degree of satisfaction of their therapy using pets b) control: the difference of the male and female patients over 12 weeks with the use of Pet therapy.

Importance of the Study
The medical literature contains numerous articles documenting the objective health benefits of pet

assisted therapy in a stroke patient. Pets provide stimulation and muscle-coordination retraining to a stroke victim by having the patient pet a dog or throw a ball for a game of fetch (Edwards, 1994). Another study shows therapeutic interaction with the non-communicative patient, assist in recall of memories and help sequence temporal patients with head injuries or chronic degenerative diseases of the brain such as Alzheimer's disease. This study showed increase progress in memory of an Alzheimer's patient within just a 1-month time. Many studies have shown that pets are psychologically important to the elderly, as they help stimulate socialization by providing a topic of conversation and a reason to live, especially after the patient has suffered a loss of a husband or wife. A pet can help us cope not only with the loss of a loved one but help us adapt to changing circumstances such as an illness or a change in living arrangements (Robertson, 1990).

Animals do not just provide love and affection for people who need it. They are also used as a therapeutic tool. The importance of this study is an initial attempt to quantify the results of a Pet Assisted Therapy intervention.

Scope and Delimitations of the Study

The study will examine the increase in socialization that occurred with the use of pets and the positive socialization of geriatric age group participants. It is limited to geriatric patients requiring varying degrees of skilled nursing care. Their ages were, 55-85 years. Gender or ethnicity did not limit the scope. Control subjects were not matched for the degree of ambulating some were in wheel chairs others could walk without assisted devices. Only participants falling into four disease categories were included in the study, limiting the data extrapolation to patients with these types of diseases. The measurements and questionnaires were collected in the year 1999. The patient population of the Sherman Oaks Transitional Care Unit is primarily WASP; thus the ability to generalize their results is limited to other similar populations.

Chapter II: Review of Related Literature

This review of literature will focus on, a) increase in socialization of patients in a nursing home with the use of pets, b) the degree of improved physical therapy seen in patient's with the use of pets as part of their rehabilitation, and c) the improvement of psychological well meaning in Dementia and Alzheimer patients.

Animals have been associated with humans for at least fifty thousands years, initially perhaps as scavengers, then as working companions, as domesticated sources of food, and finally as pets and sources of pleasure (Lorenz, 1965). It is reasonable to assume an evolutionary advantage accrued to humans who maintained a beneficial relationship with animals, that is, humans who used animals profitably may have been able to reproduce at a greater rate than those who did not make use of animals may. Modern humans would be genetically predisposed to keep and derive comfort from animals. Vast numbers of urban and suburban dwelling humans have no economic need to keep animals these days; a very large population of them does keep one or more companion animals. (Beck& Katcher, 1983)..

Lynch, Thomas, and Weir (1993) examined marked physiological response in-patients' that had a dog to pet. The heart rate of a patient with dementia decreased to 5 beats per minute when he was introduced to a dog and was allowed to pet him. The result was collected at a nursing home that specialized in dementia patients. The dogs were introduced to the patient's hourly for 4 hours then every other day this was the control group. The independent variables were represent by the nursing staff and the patient's family. Arguments against the study were voiced because they felt that the patients responded to their family members rather than the pets.

The beneficial effect of pet ownership has been suggested by the lower, one-year mortality rate of pet owners discharged from a hospital coronary care unit. Of a sample of 92 people admitted to a coronary care unit with a diagnosis of myocardial infarction or angina, 53 patients owned pets (Freidman, Katcher, Lynch, & Thomas, 1990). Eleven of the thirty-nine people who did not own pets died within a year of admission to the hospital while only three of the 53 pet owners died (Gunby, 1989). Those who owned pets represented the control group.

Despite other complications that may represent greater importance to determine survival after admission to a coronary care unit, pet ownership may prolong survival after discharge from a coronary care unit (Wright & Moore, 1982).
Pet ownership may prolong survival after discharge from a coronary care unit though unknown mechanisms and uncertain variables (Friedman & Katcher, 1983).

Of a sample of 92 people admitted to a coronary care unit with a diagnosis of myocardial infarction or angina, 53 patients owned pets (Friedman, Katcher, Lynch, & Thomas, 1990). Eleven of the thirty-nine people who did not own pets died within a year of admission to the hospital while only three of the 53 pet owners died (Gunny, 1989). Those who owned pets represented the control group. Despite other complications that may represent greater importance to determine survival after discharge from a coronary care unit (Wright & Moore, 1982). Pet ownership may prolong survival after this health setback.
The Baker Medical Research Institute did a study of the risk of cardiovascular disease in pet owners and non-owners in order to see if there is a correlation between pets and physical well being. (Anderson, 1992). Men who owned pets had significantly lower systolic (but not diastolic) blood pressure than the man who was not pet owners did, and they also had significantly lower serum triglycerids and cholesterol levels. (Anderson, 1992). In the women group over 40 same blood pressure results as well as plasma blood levels with patients that had pets and those that did not. The reason for these results is that pet owners got more exercise than the non-owners did. The researchers came to the conclusion that the pet owners in their study had "lower levels of accepted risk factors for cardiovascular disease, and this was not explicable on the basis of smoking, diet, body mass index, or socioeconomic profile."(Anderson, 1992, p. 157).

Research done in Australia by Morgan Research had some interesting findings concerning the estimates of health savings for pet owners. Dog and cat owners visited doctor 4.41 times per year, whereas all others visited 5 times. Therefore, the savings were $790 million on health expenditure annually after the figures were completed. The savings for internal medicine visits were $44.754 million annually, pharmaceuticals were $31.430 million and hospitalization was $ 186.3 million. The grand total that the researchers came up with was $262.484 million. (Humphries, 1994)

Beneficial effects of pet ownership on general health of senior citizens were suggested by a prospective yearlong study of 938 Medicare enrollees in an HMO. These pet owners had fewer visits to the doctor within that year (Siegel, 1990). Owning a pert can give us a great deal of pleasure and enjoyment. Having pets is beneficial for people with AIDS or HIV. (Siegel, 1992). Having a dog around constantly nuzzling and seeking affection can be a major high point in the life of someone who has AIDS or HIV, when people tend to shun them. The pet will not abandon them when times are tough and nobody seems to care. The pet will provide companionship and joy that is often difficult to find when he is infected with this deadly disease.

Pet Assisted Therapy in acute general hospital patients provides a home- like atmosphere. They are noted to have an uplifting effect on patients, visitors and staff. Goals of pet assisted therapy programs

include the reduction of stress and anxiety associated with hospitalization (Kleczynski, 1994). The presence of the dogs on the wards of an acute care general hospital does enhance the therapeutic milieu.

Beneficial effects of pet ownership on general health of senior citizens were suggested by a prospective yearlong study of 938 Medicare enrollees in an HMO. These pet owners had fewer visits to the doctor within that year (Siegel, 1990).
Improvements in the quality of life in nursing homes have been suggested by a survey of the effectiveness of a pet therapy program of monthly visits to nursing homes in Florida. Commonly reported effects of the visits included shared experiences among residents, more socialization among residents and it gave them something to anticipate. A pet therapy program appeared to improve the quality of life for some residents of nursing homes in Florida (Yates, 1987).

Several reports document the benefits of pets for senior citizens (Wilson & Netting, 1983; Ryder, 1985., Serpell; 1996). The participants in the study were represented by 59 senior citizens living in a group residence, to assess the desire to have contact with animals. Patients with good physical mobility, and no impairments of their eyesight represented the group that wanted to have the animals. Pet ownership is associated with evidence of psychological health in some senior citizens (Kidd & Feldman, 1981; Rogers, Hart, & Boltz, 1993).

In a prospective study of 66 seniors citizens residing in two facilities, attendance at dog activity sessions was higher than attendance at other activity sessions (Neer, Dorn, & Grayson, 1987).
In pet therapy the pet functions as a catalyst to facilitate human contacts. The pet provides emotional support, and motivated walks and other activities resulting in interaction with other human beings (Gagman, 1992).

Indications hypothesized to benefit from pet assisted therapy include loneliness, depression, inactivity, fatigue and arterial hypertension (Bustad, 1989). A prospective study analyzed the effects of the introduction of a resident dog to a nursing home. The majority of the residents felt that the dog was good for others. The data was collected through interviews of 50 patients. The independent variable of patients and the dog were recorded by audiotape. The dependent variable of increase socialization was measured via a five point Likert scale questionnaire. The hypothesis that there was increase socialization with the introduction of the dog was supported. The findings suggest that the patients were more social and verbal after the session with the dog than before (Verderber, 1991)

Nursing homes use dogs to interact with the residents. Bonds develop between the dogs and the residents. Bringing the dogs in fulfill the elder's need to nurture. The residents become more alert after being with the dogs. Many nursing homes have different ways of using dogs as therapeutic tools. One in Oregon has its residents observe the dogs being trained in their parking lot, and then ask the residents to play with the dogs. This stimulates conversation among the residents. Dogs also seem to make the residents smile. (Sanderson, 1994)

Bringing dogs into nursing homes is also used as physical therapy. Most of the residents love to pet animals. This is better than physical therapy for their arthritic fingers. Mentally it gives them something to think about. Seeing the same faces every day can be very boring. So when the dogs are brought in they strive to remember their names and when they do they are very proud.
According to the National Institutes of Health, among older people the ownership of pets does not help the general illness status but does act in combating depression. Pet Therapy has had more positive response in nursing homes in comparison to arts and crafts or visitors coming in to visit for the day. The benefits of interaction with pets are many. Visits with therapy pets encourage reminiscences and

social interaction, and result in stress relief and incidental physiotherapy. (Island, 1996). Often a visit with a pet is the high point in a shut-ins day, bringing happiness and a sense of well being.

Chapter III: Methodology

Introduction

The purpose of this research was to prove an increase in socialization of geriatric patients in a transitional care setting that have been exposed to pet assisted therapy; and improvement of psychological well being and socialization skills with the use of pet assisted therapy as part of their rehabilitation. This study is significant to other forms of rehabilitation on geriatric patients with or without the use of pet therapy. This was done in a case control design. The research goal was to evaluate geriatric patient's socialization skills and psychological well being with the use of pet assisted therapy to measure improvement, failure or no change. This is needed to determine if the co-variable pet assisted therapy was directly proportional to the improved socialization skills and improved psychological well being.

Selection of Participants

A total of 100 patients were examined for change in psychological well being and socialization skills over a 3 month period of time. These patients were screened and those having the following conditions were included in the study, 1) hypertension, 2) CVA, 3) cardiac problems, and 4) Alzheimer's or dementia, and 5) Aids or HIV. The subjects were geriatric age but there were no gender or ethnic restrictions in this study.

Research Design

Once meeting the criteria, the patients were introduced to pet assisted therapy 1.5 hour per day once a week for three months. Besides petting the dog, more than half of the subjects let the dog lick them. The researchers was not able to observe the patients that did not have pet therapy because less than 1% of the population at the transitional care unit at Sherman Oaks refused to see the dog. Observation of the participants who saw the dog more than once was a bond growing and the desire to give the dog a treat.

Instrumentation

The success of Pet Therapy was measured by a self- designed questionnaire given to the transitional care patients by myself based on how the dog made them feel. The instrument used will be similar to the Lakers scale. The quantitative measurement were records of the times a participant had pet therapy as well as the increase positive behaviors that was observed before and after Pet Therapy was initiated.

Treatment of Data

The data was analyzed in terms of physiological and emotional statistical differences between measured variables; in this case the differences by gender.

Chapter IV: Data Presentation and Analysis

Presentation of Data

The sample was comprised of 100 TCU (transitional care patients). There were 34 male patients and 66 females patients. The age range was 50-70+; they were convalescing from their various aliments. Table 1 presents the number of visits that were made by the pet and therapist and the emotional effect of having the patient visit more than once. The largest effect on emotional well being is the ability to forget emotional and physical pain; this data was not discriminated by sex but by all participants in this

study.

Table 1 How does Pet Therapy make you feel?

No. Of visits	Emotion displayed
Five + Visit	Emotional pain diminishes the most
	Physical pain diminishes the most
	Less boredom the most
	Happiest the most
	Less anxious the most
Three Visit Emotional pain less	
	Physical pain less
	Less bored
	Happier
	Less anxious
One Visit Happy	
	Less bored
	Less anxious

Presentation of Data

The sample was comprised of 100 TCU patients, ages 50-70 plus. This graft shows ages of patients with the diagnosis of Orthopedics. The largest age groups for this diagnosis is the 70 plus group and the oldest and the smallest group is the 50 plus group the youngest age group.

Table II Diagnosis –Orthopedics

Age	No. patients
50-60	4
61-65	50
66-69	10
70 plus	64

Presentation of Data

The sample was comprised of 100 TCU patients, age's 50-70 years of age. This graft shows the ages of patients with the diagnosis of hypertension. The youngest age group is represented by the smallest amount of patients, while the oldest age group is represented the by the largest amount of patients. The population is both male and female.

Table III Diagnosis Hypertension

Age	No. Patients
50-60	3
61-65	8
66-69	4
70 plus	15

Presentation of Data

The sample was compromised of 100 TCU patients, ages 50-70 plus. The graft shows patients with the diagnosis of Aids and their age group. The largest age group is the oldest 70 plus yr., while the smallest no. Is the age group represented by 66-69 yr., no is 0. The population is both male and female.

Table IV Diagnosis Aids

Age	No. Patients

50-60	2
61-65	1
66-69	0
70 plus	3

Presentation of Data

The sample was comprised of 100 TCU patients, ages 50-70 plus. The graph represents patients with the diagnosis of Dementia, the smallest group 50-60, represents 9, the largest group represents the oldest 70 plus, 5 patients. Men and women represented this group.

Table V Diagnosis Dementia

Age	No. Patients
50-60	0
61-65	4
66-69	1
70 plus	5

Presentation of Data

The sample was comprised of 100 TCU patients, ages 50-70 plus. The graph represents patients with the diagnosis of other diseases, ages 50- 70 plus, the smallest group is represented by the youngest group, 50-60, while the largest group is represented by the oldest group, 70 plus. Men and women represented this group.

Table VI Diagnosis Other Diseases

Age	No. Patients
50-60	1
61-65	8
66-69	4
70 plus	13

Presentation of Data

The sample was comprised of 100 TCU patients, for this graph only women were represented. This graph shows the feelings and emotions brought out by Pet Therapy. The largest emotion displayed was the show of affection by the pet; the smallest group was represented by other emotions.

Table VII what do you like about Pet Therapy? Women

Emotions	% female patients
Feel of the animal	14
Interaction (Visitor)	18
Show of Affection	22
Break with monotony	3
Happiness/Joy	23
Way to release emotion	7
Draw person out	9
Other	4

Presentation of Data

100 TCU patients comprised the sample, for this graph only men were represented. The largest emotion displayed was the feel of the animal and the smallest percentage was represented by show of affection.

Table VIII what do you like about Pet Therapy? Men

Emotion	% Male Patients
Feel of the Animal	24
Interaction (Visitor)	21
Show of Affection	0
Break with monotony	3
Happiness/Joy	7
Way to release emotion	8
Draw person out	16
Other	3

Appendix A
Questionnaire used for 100 TCU Patients
1. What do you like about Pet Therapy?
____ Feel of the animal
____ Interaction (Visitor)
_____Show of Affection
_____ Break with Monotony
_____ Happiness/ Joy
_____ Way to release emotion
_____ Draw person out
_____ other
2. How does Pet Therapy make you feel?
_____ less anxious
_____ Less bored
_____Happier
_____ Less pain
_____ Do you forget about physical pain?
_____Do you forget about emotional pain?

3. Repeat visit with dog
_____ Once
_____More than three times
_____More than five times

Chapter V: Summary, Conclusions and Recommendations

The data has supported the alternative hypothesis that there is a difference between the emotional well being and psychological attitudes of patients participating in Pet Therapy than those who did not received Pet Therapy. The purpose of this study was to prove that Pet Therapy has a place for rehabilitation in the health care setting. The limitations of this study were time, (only had 12 weeks), and the ability to visit more than one facility that uses Pet Therapy.

Pet Therapy began in the state of California more than 20 years ago. The program is designed to share animals with people of all ages in facilities such as convalescent homes, hospitals, mental health centers, abused children's homes and juvenile detention. Volunteers play a large role in the success of this program.

To conclude, a study done on premature babies and in hospice unit representing the beginning and end of life would expand the domain of this research.

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Comparative Impact Evaluation of TwoTherapeutic Programs for Mentally Ill Chemical Abusers

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Abstract: *This study investigated the relative impact of a traditional, disease specific program model and an integrated program model on the basis of treatment outcomes for homeless, mentally ill chemical abusers (MICA) patients. Patient outcomes in these two hospital based, residential programs that treat MICA patients and that varied only in their treatment models were compared across seven indicators: successful community placement, treatment failures, service hours, subpopulation outcomes, recidivism, patient satisfaction, and cost efficiency. It was found that the integrated program model tended to produce greater gains with a low functioning, homeless MICA population, while the disease specific, therapeutic community model may be more suited to higher functioning MICA patients. A recommendation is made to expand the scope of efficacy and outcome research with different program models.*

A Comparative Impact Evaluation of TwoTherapeutic Programs for Mentally Ill Chemical Abusers

Introduction: Patients diagnosed with severe mental illness who also suffer from other psychiatric and medical disorders present a variety of individual, social, fiscal and political challenges not only for program funding, but for planning and implementing effective rehabilitative treatment programs as well. Severe mental illness coupled with severe personality, behavioral, addictive, cognitive or physical disease, stretches the ability of traditional community based treatment programs to effectively treat these patients. This has led to the development of a wide variety of treatment models designed to serve the multiple needs of these patients (Bachrach, 1984; Drake, 1991; Minkoff 1987). An evaluation of the clinical effectiveness of these models would not only lead to more cost effective use of limited treatment resources, but more importantly, improve clinical treatment options for the dually diagnosed patient.

Focusing a program impact evaluation on current treatment models for the most commonly reported dually diagnosed population, mentally ill chemical abusers (MICA), may demonstrate the differential rates of effectiveness for the most commonly used program models (PsycInfo, 1993). Such results would be useful to policy planners, administrators, legislators and program developers who must design and implement the most effective treatment programs possible with limited resources. More importantly, this information can be used to not only determine what treatments and programmatic approaches are effective, but to improve the quality of care for severely dysfunctional MICA patients.

Treatment programs for the dually diagnosed primarily fall into two main categories: disease specific and integrated program models (Minkoff,1991). Disease specific program models tend to focus treatment on what they consider to be the primary area of distress and minimize the importance or

urgency of other areas of dysfunction. Many substance abuse treatment programs and traditional hospital based mental health programs typically model their treatment programs in this manner. Integrated program models, found in both hospital and community based settings, are designed to provide individualized treatment planning and services that focus attention on all areas of patient dysfunction within a single program.

The development of these models has not been based so much on the clinical efficacy, but more on availability of funding and political interest in treating specific patient populations (Humphreys & Rappaport, 1993). This fragmentation of program models has been perpetuated through the development of artificial and arbitrary administrative divisions at the federal, state and local levels without regard to clinical measures of success for the various program models. Consequently, it is possible that many public sector and grant funded programs continue to be financed through a variety of funding streams with little or no demonstrable clinical success. This siphons critical funds from those programs that use more clinically viable models.

Dually diagnosed patients in general and specifically MICA patients have complex treatment needs and interactive symptomatology that require a more integrated approach than is generally employed (Breakey, 1987). It therefore seems more likely that integrated treatment models would be clinically more effective in treating the dually diagnosed MICA patient than disease specific models. However, given the severe therapeutic challenges that substance abuse and dependency present, a more restrictive, traditional substance abuse model may actually provide increased efficacy for the MICA patient as well. Evaluating the various treatment outcomes produced by each program model, treating a similar patient population, should demonstrate the relative clinical effectiveness and cost efficiency of each program model to treat MICA patients.

This exploratory study investigates the clinical impact of each program model on MICA patients. Specific outcome indicators and study variables were selected to demonstrate each model's effectiveness in meeting the programs' stated therapeutic goals for MICA patients, and to rule out outcomes that may be due to differences between the programs, such as population differences, number of services delivered, and level of patient participation. These indicators compare relative degrees of outcome efficacy between the two programs and are not process oriented. As such, they directly relate to the goals of the two programs. Since the location, staffing pattern, outplacement resources, and goals of the programs are identical, and the study population similar in terms of diagnostic and demographic composition, the results should illustrate the relative impact of disease specific and integrated program models in the treatment of homeless, MICA patients.

Method Design and Program Characteristics

This investigation evaluated patient outcomes for two treatment programs at Bellevue Hospital Center, NYC, NY, that treat homeless, male mentally ill chemical abusers. Clinical outcomes in the MICA Transitional Living Community Program (MICA TLC), a disease specific substance abuse treatment program, are compared with outcome data from the Transitional Living Community (TLC), an integrated, MICA residential mental health program. Both residential programs have program goals of rehabilitating MICA patients over a six month period and placing graduating patients in community based housing. A comparison of patient outcomes for the same efficacy indicators was performed to determine the relative value of integrated and disease specific treatment models in treating MICA patients.

Program Descriptions

TLC Integrated Program Model: This 30 bed voluntary residential rehabilitation program is located at the 30th Street Facility of the Bellevue Hospital Campus on the 6th floor. This program for homeless males with severe and persistent mental illness is administered by the Director of Community Support Services and is staffed by one psychiatrist, three social workers, one psychologists, two nurses, five nurse aides, three rehabilitation/activity therapists, and two clinical case managers. Individual therapy, group therapy, rehabilitative group sessions, case management support, substance abuse counseling, double trouble (addiction and mental illness) groups, and pharmacotherapy were customized within individualized treatment plans to meet the needs and desires of the patient.

In this program, a voluntary treatment contract is negotiated with each patient and he is free to leave the program during the day, provided he has fulfilled his contractual treatment schedule for that day. Patients are typically scheduled for 3 to 5 hours of treatment daily. This program focuses on the whole spectrum of mental illness and substance abuse issues in an open, non threatening environment, normalizing substance abuse issues as just one more treatment challenge that the patient has the responsibility for overcoming.

MICA TLC Disease Specific Program Model: This is also a 30 bed residential rehabilitation program, located at the 30th Street Facility of the Bellevue Hospital Campus on the 6th floor. This program, also designed to treat homeless males with severe and persistent mental illness and substance abuse, is also administered by the Director of Community Support Services and is staffed by one psychiatrist, four social workers or psychologists, two nurses, five nurse aides, three rehabilitation/activity therapists, and two clinical case managers. This program adopted a traditional generic self help, therapeutic community treatment approach where traditional substance abuse groups and individual therapy are combined with pharmacotherapy to reduce dependency needs and facilitate social re integration. Confrontational approaches and a highly structured 'house' hierarchy maintain an almost military atmosphere that structures the lives of all the patients in the program.

Like other disease specific MICA programs, patients agree to remain on the unit and are supervised for all off program activities. Unlike the TLC program, treatment plans are generally identical for all patients and stress abstinence and social responsibility. Services include Double Trouble Groups, Substance Abuse Rap Groups, AA, Resocialization Groups, Individual Psychotherapy and Community reentry groups focused on maintenance of sobriety in the community. This program maintains a highly structured, substance free, restrictive environment focused on delivering a similar level and type of treatment to all admitted patients.

Data Collection and Subject Inclusion:

All male, mentally ill chemical abusing patients who entered the programs after 4/25/91 and who were discharged by 11/25/93 were included in the investigation. The admission criteria of homelessness and a major Axis I diagnosis in addition to a substance abuse diagnosis are the same for both programs. In addition, all patient referrals to the programs come from the same Bellevue inpatient psychiatric units and New York City homeless shelter programs. Thus, the patient 'pool' for these two programs are assumed to be identical for the purposes of this study (See Subject Selection). This was confirmed by an analysis of variance and comparison of demographic characteristics between the groups on the dimensions of age, diagnosis, substance abuse severity (in years and type of abuse), prison history, suicide history, medication, and number of previous hospitalizations. Since this subject pool was thus determined to be grossly equivalent, the relative success of each treatment model could be compared and a comparative rate determined across indicators (Tables 1 & 2).

Within the context of this study, successful rehabilitation of patients and program graduation required a Global Assessment of Functioning (GAF) level of at least 80. The functional level was recorded on New York City Department of Mental Health functional assessment forms. The addiction severity index is a survey instrument to record the type of substance abused, duration of substance abuse and housing, prison and work history. The determination of functional level at the time of program graduation and the degree of addiction severity were made by clinical case managers within the programs. These levels and scores were subsequently confirmed by clinical case managers from an affiliated case management program. The administration of the addiction severity index required no additional training since it is a self report questionnaire that could be independently completed by patients. The case manager raters from the affiliated case management program were responsible for long term patient follow up of those patients who graduated and were placed in community based housing. Three month post graduation outcome information on patients who were placed in community based, residential programs and apartments was performed by these same Clinical Case Managers who recorded their findings on New York State Office of Mental Health Form 143a, Parts 1 & 2. This data provides the basis for post graduation placement and recidivism data.

Subject Selection

Outcome measures on 76 male patient from the TLC and 149 patients from the MICA TLC were included in this investigation. The patients for both programs under study were selected on the basis of their meeting the diagnostic and homeless admission criteria for the programs. Patients who were homeless for at least 3 months, who were ambulatory and no longer in need of acute care, and who were diagnosed with a major Axis I disorder of Schizophrenia, Major Depression, or Bipolar Disorder and an additional substance abuse diagnosis were admitted to both treatment programs directly from the same inpatient acute care units of the hospital and NYC Shelter Programs, on a space available basis. No other conditions for admissions were imposed.

Though the TLC program also admitted patients without the additional substance diagnosis, only the MICA patients were included in this study. In the MICA TLC all admitted patients were included in this study. No MICA patients were excluded from this study in either program.

Equivalency of Subject Characteristics: In terms of the programs' goals of rehabilitation and placement of mentally ill chemical abusers within a specified time frame, the subjects selected from both programs are considered are identical; they are both comprised of only MICA patients. In addition, both groups meet the target diagnostic and functional criteria for treatment in the programs and from the programs' point of view were expected to functionally improve over a six month period to the point of community readiness. Since this study compares patient outcomes against the program goals, they are considered identical only in this respect. Both groups are comprised of male, homeless, MICA patients with similar backgrounds from the same geographic location, receiving treatment in the same hospital facility.

Measures and Analysis

The two programs were evaluated by the following outcome criteria:

Indicator 1: Successful Treatment Outcomes The primary program goal for each program is to rehabilitate patients over a three to six month period to the point where they are functionally able to live independently in the community and maintain psychiatric stability and abstinence from psychoactive substances for a period of six months after placement in their community setting. Patients who were rated as functionally ready for independent living, GAF level (APA, 1994) of least 80, at the time of

program graduation and three months after community placement were considered functionally capable of community based living and considered successful in fulfilling the programs' rehabilitation goals. The relative percentages of patients who met and maintained this functional level were included as a measures of the models' success.

Indicator 2: AMA Discharge Within the context of this evaluation, the percentage of patients who did not complete treatment and who left the programs against medical advice (AMA) were compared across programs as a measure of the treatment program's inability to meet the needs of the target population. Since both program models had clinical failures of this type, the percentage of patients who left each program against medical advice or for violent threats or actions (cause) were included as AMA Discharge measures of negative clinical outcomes.

Patients who were discharged before program graduation for substance abuse relapse were also included in this measure. However, there were few of these outcomes due to the following reasons:

The MICA TLC is a voluntary lock down program with 2 scheduled urine analyses (UA) weekly and one random UA.

In the TLC program, drug/ETOH was strongly discouraged, Uas done on suspect abusers, ETOH breath analysis done on a regular basis, and progressive levels of loss of privileges and other disincentives used to discourage drug and alcohol use. In the TLC program every effort was made to rehabilitate patients across all psychosocial areas, including substance abuse. When this failed, the patients generally left AMA on their own when they could not tolerate the loss of privileges or other negative sanctions that curtailed their activities.

If patients decompensated to an acute stage they were rehospitalized and this is counted in the recidivism data.

Once in community placements, they were generally given UAs in most cases but this data was unavailable because it occurred in Private Non Profit programs not connected to the hospital. In almost all cases the patients were placed in community residences that discouraged use and monitored patients for abuse. Though few were actually 'kicked out' of these residences, many left not due to psychiatric reasons but due to a return to substance abuse. In either case their functional level can be assumed to have dropped because they were no longer able to live independently.

Indicator 3: Correlation of Service Hours delivered. Bivariate correlations between actual number of service hours delivered and successful treatment outcomes by program was performed to evaluate whether variable amounts of treatment affected overall program outcomes and success. Total service hours delivered to each patient in a program were correlated with the relative percentage of successful outcomes and AMA discharges in each program. This evaluated the relationship between amount of services delivered and successful treatment outcomes.

Data collection methods: These hours were collected in the accounting data used for medicaid reimbursement. This listed the type of service given, to what patients for how long, by each clinician. Each week, all clinicians would fill out their patient summary sheets that include all patient contact hours for that week. Each of these hours is considered a service unit. These service units were summed for all patients and then compared with patient functional level or overall outcome in the program in bivariate correlations.

Indicator 4: Subpopulation Outcomes Differential success rates between diagnostic subpopulations (i.e., schizophrenic, substance abusers versus mood disordered, substance abusers), was also compared to determine whether the models are best suited to one sub population or another. This measure was also applied to the criteria indicators listed above.

Indicator 5: Relative Rates of Recidivism Percentage rates of patient recidivism for program graduates was also determined as a measure of the program's relative inability to effectively rehabilitate their target MICA population. Recidivism within the context of this study is defined as any patient who returns to the hospital or another treatment program during or after his placement in community based housing. This may be due to either decompensation to an acute psychiatric phase, or a return to substance abuse to a degree that requires rehospitalization or additional rehabilitative treatment in a residential treatment facility. Indicator 6: Patient Satisfaction Patients in both groups completed a standard New York State Office of Mental Health patient satisfaction survey (NYSOMH, 1990) within a month of their graduation from their respective treatment program. This provided a measure of the patients' qualitative level of satisfaction within each program model.

Indicator 7: Cost Efficiency Rate Relative cost per service unit was determined for patients who successfully met the goals of the program (See Indicator 1). This measure was included to illustrate differential program costs for those patients who met program goals and is considered a gross measure of program efficiency within the context of this study. The cost figures were determined by dividing the total annual operating costs (personnel, medication and supply costs) by the sum of the service hours for patients who met the 'successful outcome' criteria. Program development costs, capital improvements, and other non operating costs were excluded from this analysis. Cost benefit and cost effectiveness analysis were not performed, since the necessary variables for such analysis were beyond the scope of this investigation.

Results

Comparisons of Patient Characteristics: Tables 1 and 2 detail the results of MANOVA and comparison of means by independent samples t tests. Significant between group differences were only found in five of the 33 characteristics selected for comparison. On average, MICA TLC patients tended to be 6 years younger, comprised of 23% more Afro Americans, 15.2% less alcohol dependent, stay 26 less days in the program, and receive $143.48 less welfare than those in the TLC. However, these differences appear to be more directly related to programmatic factors, than sample differences in the population. Patients who were being considered for admission to the programs had the option of rejecting admission, even when accepted to the programs. Thus, the entire referral pool of patients more accurately represents this population of MICA patients because those who deselect themselves from the programs are included and can be compared between the programs. When the entire pool of patient referrals to each program was compared to the pool of admitted patients, the significant differences in age and ethnicity disappeared. It is likely that older, alcohol abusing patients (2X more likely to be Caucasian) would find the environment of the MICA TLC too restrictive and seek entry to the TLC Program or refuse admission to either program. One hundred thirty five patients who were referred to the programs refused admission; 74% of these were referrals to the MICA TLC. Length of stay differences were due to the high rate of MICA TLC 'dropouts' (Figure 1) and welfare benefit differences were due to a reluctance on the part of the MICA TLC staff to supply substance abusers with cash benefits that were felt to be potential sources for 'drug money'.

Though these characteristic variances are statistically significant, the variation between the study groups is insufficiently large to account for the various patient and program outcomes displayed in

Figure 1 and 3. For example, the effect size differences between the patient outcomes of the two programs cannot be accounted for by the significant between group differences in diagnosis. The 12.9% difference in crack/cocaine dependency in the MICA TLC Program represents a total of 19 patients, while alcohol dependency differences of 15.2% in the TLC program only represents 12 patients. Using a worst case scenario, excluding these differential patients from each program's differences in successful community placement, the TLC program still produced more than twice the number of placed graduates. Thus, the effects of the diagnostic and other differences probably contributed to the differences in outcomes, but cannot account for the full effect size differences displayed in Figure 1.

Table 1
Patient Characteristics

	TLC N=76		MICA N=149		All Refs N=360
	%		%		%
Diagnosis - Primary Axis I					
Psychotic Spectrum	76.3		68.5		68.4
Mood Spectrum	23.7		30.1		25.1
other	0.0		1.4		6.5
Diagnosis - Secondary Axis 1					
None	1.3		3.4		2.5
Polysubstance Abuse	57.9		53.0		50.0
Crack/Cocaine	11.9	*	24.8		22.9
Dependency					
Alcohol Dependency	26.6		11.4	*	20.9
Other	2.3		7.4		3.7
Diagnosis - Axis II					
Personality Disorders	3.9		3.3		8.0
Medications					
Neuroleptic	76.3		68.4		66.0
Antidepressive	15.8		17.5		18.1
Anxioletic	1.3		0.7		2.0
Lithium	6.6		6.0		5.0
Anticonvulsive	0.0		2.0		0.0
None	0.0		5.4		8.9
Ethnicity					
AfroAmerican	48.7	*	71.1	*	62.3
Caucasian	34.2	*	15.5		19.3
Hispanic	13.2		13.4		15.0
Other	3.9		0.0		3.4
Marital Status					
Single	94.8		85.9		81.6
Married	2.6		2.7		7.3
Sep./Divorced	2.6		10.7		8.0
Widowed	0.0		0.7		3.1
Prison History	72.4		75.2		63.0
Military History	9.2		16.8		12.8

Note: The All Refs (All Referrals) Column represents the patient characteristics of all MICA patients referred to the two programs from the hospital and shelter systems. This not only includes those patients who entered the programs, but those who refused admissions to the programs as well. * = p<.05 two tailed, for significant differences in between group comparisons of percentages.

Table 2
Comparison of Equality of Patient Characteristics By Means of Patients t Scores

	TLC N=76		MICA TLC N=149			
	mean	s.d.	mean	s.d.	t-value	F
Age	40.80	10.259	34.91	7.706	4.84	8.357 a
Education	11.01	1.963	10.87	2.410	0.46	0.550
Previous Hospitalizations	2.54	1.879	3.75	2.224	-4.07	0.454
Suicide Attempts	0.49	1.390	1.17	2.132	-2.52	3.915 b
Length of Stay in Program	137.89	108.289	111.37	79.395	2.09	15.869 a
Months of Homelessness	30.62	34.691	43.00	42.667	-2.19	3.014
Treatment Hours (Daily)	3.26	0.854	5.43	0.940	-16.91	1.802 b
Welfare Benefit Amount	433.79	153.425	290.31	258.504	4.45	59.190 a

Note: F= Levene's Test for Equality of Variances. Within each row comparison, significant differences (p<.05, two tailed) are indicated by an 'a' at the end of the row. A 'b' at the end of a row indicates only a marginal effect (p<.10, two tailed)

Indicators 1 and 2 - Results for these indicators are demonstrated in Figure 1 and Table 3. Though rehospitalization rates were found to be almost equal for both programs, the TLC program had almost 5 times more successful placements than the MICA TLC (by percentage) with only half the AMA rate of the MICA TLC. Total Placements and AMA rates varied significantly between the two groups ($p < .01$).

Figure 1
Patient Outcomes:
Three Months Post Discharge

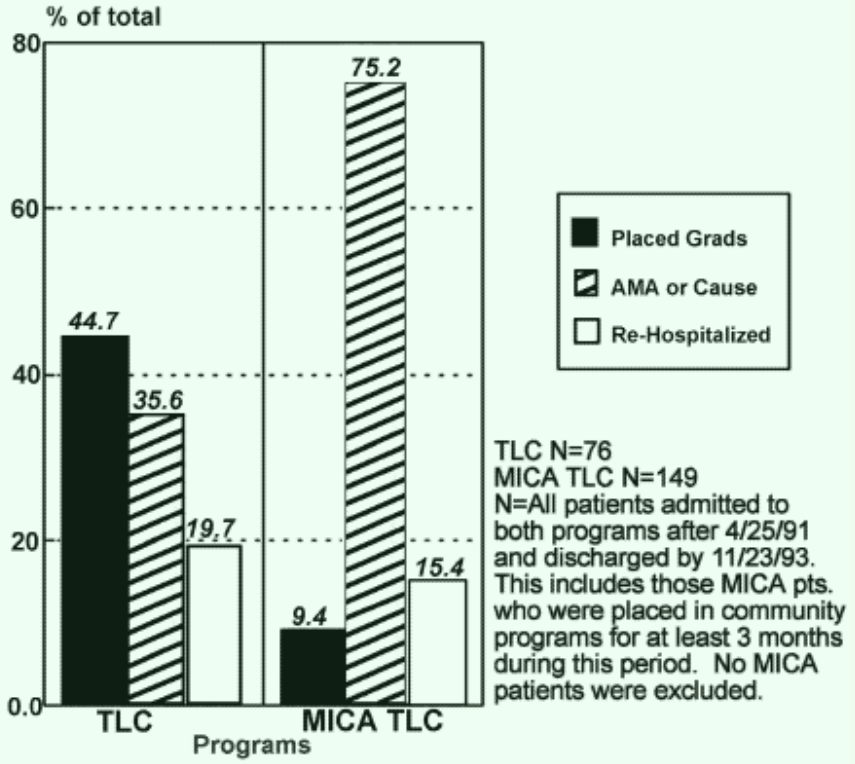


Table 3
Patient Outcome Summary

	AMA	%	Placed	%	Hosp.	%
TLC PROGRAM						
At Discharge from Program	18	23.68 **	51	67.11 *	7	9.21
Three Months Post-Discharge (in community based housing)	9	11.84 *	34	44.74 **	8	10.53
TLC TOTAL FINAL OUTCOMES	27	35.53 **	34	44.70 **	15	19.74
MICA-TLC Program						
At Discharge from Program	93	62.42 **	43	28.86 *	13	8.72
Three Months Post-Discharge (in community based housing)	19	12.75 *	14	9.39 **	10	6.71
MICA-TLC FINAL OUTCOMES	112	75.17 **	14	9.39 **	23	15.44

*p < .05. **p < .01

Indicators 3 and 4 - Results of multiple bivariate correlations of service hours to outcome and sub populations differential outcome analysis are summarized in Table 4 and Figure 2. Significant correlations were found between successful placements and number of clinical contact hours that patients received in the program. This correlation for the MICA TLC was particularly high; exceeding that of the TLC program by r=.2219. In addition length of program stay was also correlated to positive treatment outcomes at almost the same level. These results suggest that positive treatment outcomes are directly related to the amount of treatment these patients received in both programs. It also suggests that both treatment models can effect positive rehabilitative change, provided the patient is motivated to remain in treatment and actively participate in the programs.

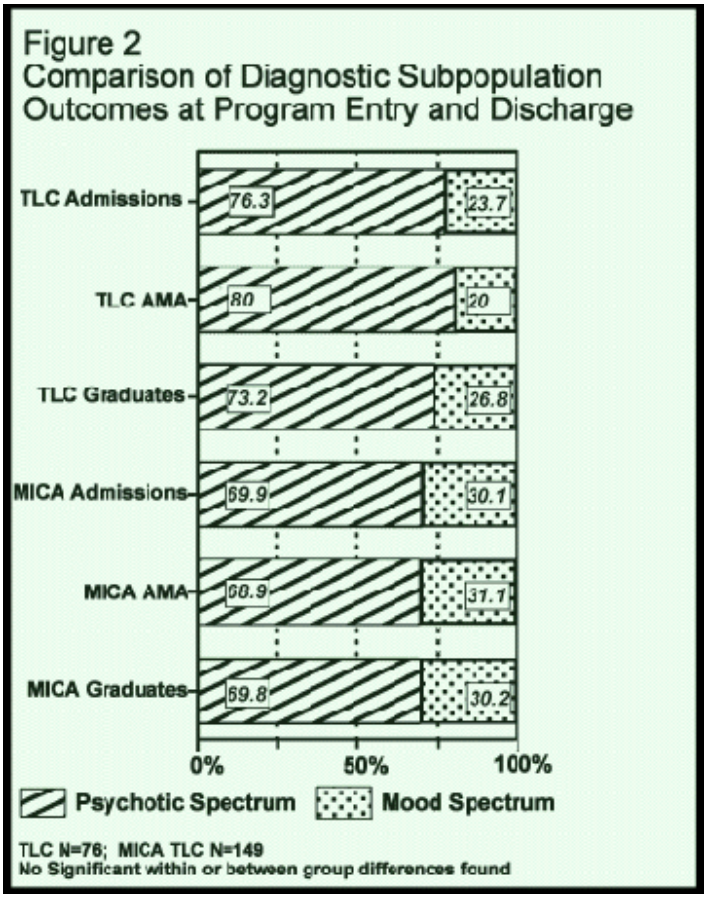
No significant differences were found for diagnostic subpopulations for either positive or negative treatment outcomes. However, significant correlations were found between those patients who were placed and the number of previous hospitalizations. In addition, months of homelessness negatively correlated with positive treatment outcomes. These results suggest that patients with more previous hospitalizations may benefit from the TLC more than the MICA TLC. The negative correlation between previous hospitalizations and length of stay in the MICA TLC lends additional support for this conclusion.

Months of homelessness and length of stay in the MICA TLC Program also significantly correlated with years of education. MICA TLC patients with more education tended to have spent less time in a homeless situation. However the most interesting statistic here is the relationship between length of stay and education. This result suggests that those who stay longer in the program are also those with the highest level of education. This is not the case in the TLC program, where no significant correlations were obtained. In view of the demanding nature of the highly structured MICA TLC program this result is understandable. For patients to successfully negotiate the program and remain until graduation, they would need higher levels of cognitive skills than in the TLC, where treatment plans are individually geared to the level of the patient.

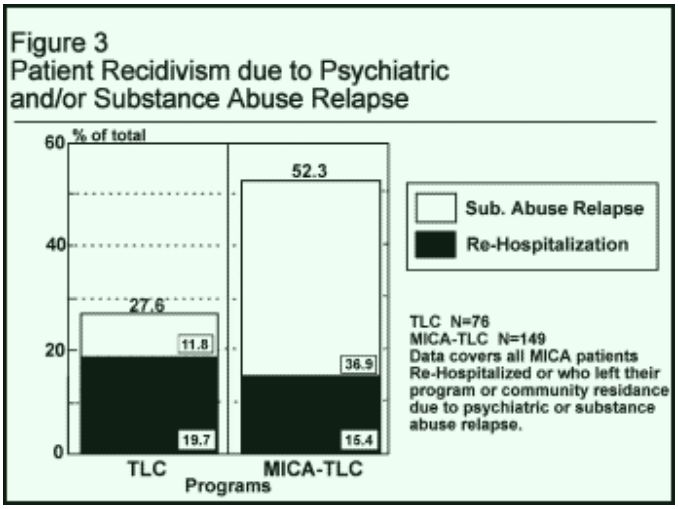
Table 4
Correlations of Significant Subpopulation Characteristics At the Time of Discharge from Program

	Discharge Type Placed	Previous Hosp. Episodes	Education Years
Services hours (daily)			
TLC	.3798**		
MICA TLC	.6017**		
No. Prev. Hospitalizations			
TLC	.3069*		
MICA TLC	-.1425*		
Months Homeless (Lifetime)			
TLC	.3372**	.4904**	
MICA TLC		.1348*	-.2442**
Length of Stay in Program			
TLC	.3782**		
MICA TLC	.6134**	-.1439*	.2029*

Note: ** p < .001; * p < .005, one tailed, bivariate correlations of patient characteristics



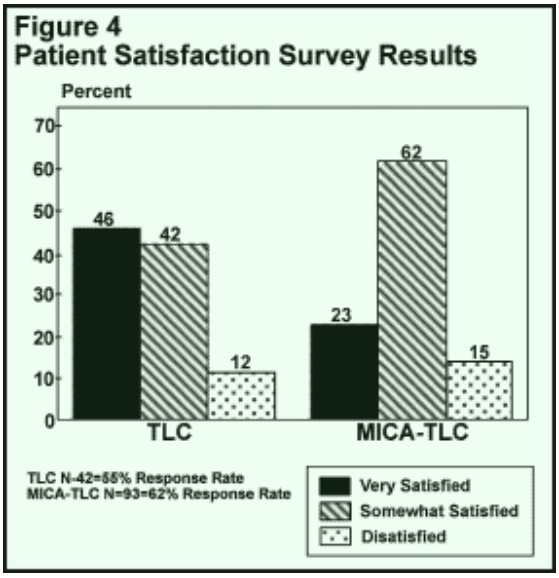
Indicator 5- A comparison of recidivism rates between the programs is presented in Figure 3. While rehospitalization for psychiatric relapse remained grossly equivalent between the programs, recidivism due to substance abuse relapse was significantly higher in the MICA TLC (36.9% to 11.8%, $p < .05$, two tailed). The MICA TLC had almost three times more substance abuse relapses that resulted in a return to homelessness or a residential drug treatment than the TLC program.



Indicator 6- Patient Satisfaction Survey results are displayed in Figure 4. This survey was only administered to a sample of the subjects in this study due to time constraints, data collection problems

and patient refusal to participate. This standard NYSOMH survey consists of 20 fill in the blank questions about various aspects of the program. Patients who responded positively on six questions or less were considered not satisfied with the program; those who reported six to 12 positive responses were rated as somewhat satisfied; and those who responded with 12 or more positive responses were considered very satisfied with the program.

Of the 55% who responded in the TLC program and 62% who responded in the MICA TLC, almost twice as many patients reported that there were very satisfied with the program in the TLC program than the MICA TLC. In addition, while the percentage who were very satisfied was roughly equal to those who reported to be somewhat satisfied in the TLC, this was not the case in the MICA TLC. In the MICA TLC almost three times as many patients reported to being only somewhat satisfied, compared to those who reported being very satisfied.



Indicator 7-Based on an operating budget of $606,000 for the TLC and $732,000 for the MICA TLC, the rate of cost efficiency for successful outcomes in the TLC was computed at $19.04 per service unit, while that of the MICA TLC was found to be $40.69. This difference is due to the low number of successful outcomes in the MICA TLC. Based solely on this, it could be concluded that the TLC Program is twice as cost efficient in successfully treating MICA patient than the MICA TLC.

Discussion

This study investigated the relative impact of a traditional, disease specific program model and an integrated program model on the treatment outcomes for homeless, MICA patients. Based on the National Institute of Mental Health (1991) guidelines for mental health service research, this study began with the question of what works, for which MICA patients, in two programs that use different therapeutic approaches to address both mental illness and substance abuse. The patient outcome results demonstrate clear differences between the programs and their therapeutic models.

From the therapeutic success and failure rates, the differences in rates of recidivism, patient satisfaction survey results, and level of cost efficiency, the integrated TLC Program model appears to have distinct advantages over the MICA TLC in the treatment of severe MICA patients with low levels of education and high numbers of past hospitalization. However, from the results of the subpopulation and characteristics correlations, the disease specific, therapeutic community model of the MICA TLC seems

to work well with patients who are more highly educated and have fewer previous hospitalizations. The high degree of MICA TLC clinical failures and recidivism and lower levels of patient satisfaction appear to be due to the inability of a traditional substance abuse model to treat low functioning MICA patients. Since the MICA TLC admitted primarily low functioning patients, the clinical failure rate is understandable. The TLC Integrated model appears to be more suited to treating such patients. Higher functioning MICA patients with less distress may fare better in the highly structured traditional environment where the locus of control is external, than in a treatment milieu that customizes services to meet the needs of patient, requiring an internal locus of control.

Finally, as an exploratory study, this investigation examined program indicators for only two programs. Expanding the scope of this study to compare outcomes of many programs that are matched for clinical population, size, staffing patterns, geographic location and service goals may demonstrate other advantages to using the respective models and refine our answers to the question of "what works, for whom under what circumstances" (NIMH, 1991, p.vii).

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Functional Assessment of Mental Health and Addiction:
A Treatment Planning and Evaluation Strategy for Clients Suffering from Co-Morbidity

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Introduction

The assessment of client functioning is a critical component of both treatment outcome evaluation and assessment of individual level of need for individual treatment planning and service delivery selection. This is especially true for the dually diagnosed client with multiple concomitant needs, on a variety of levels.. The Functional Assessment of Mental Health and Addiction scale (FAMHA) was specifically designed to meet both criteria.

While it is beneficial to note the positive client changes that occur due to the effects of treatment, it is perhaps more important to have a functional baseline or clinical yardstick with which to plan an effective strategies of biopsychosocial interventions. This is utmost importance for dually diagnosed clients, with multiple service needs in mental health, addiction treatment, and medical interventions.

A basic, core goal of all treatment is to produce substantial and enduring changes in client behaviors, cognitions and moods and more useful strategies for managing their day-to-day lives. The only other goal of treatment is then to reduce a client's distress to the greatest degree possible. By determining a client's specific level of functioning across all major biopsychosocial domains and an overall level of functioning, specific symptom and functional deficit profiles emerge that can then be used for more effective treatment planning. Such assessments are client centered by their very nature and specifically relate to the distress and difficulties that each patient must endure in their daily lives. Thus, functional assessments like the FAMHA are the key to not only measuring the outcomes of treatments on a broad scale, but crucial to the clinician's full understanding of patient's individual needs.

Description of the FAMHA

The Functional Assessment of Mental Health and Addiction (FAMHA; Anderson & Bellfield, 1999) is a clinician rating scale, specifically designed to accurately assess dually diagnosed, mentally ill substance users (MISU), substance using mentally ill (SUMI), and medically compromised - substance using patients (MCSU) across a broad range of symptom and functional domains. It was developed in response to clinical and outcome research goals identified by the Department of Health (1996) which

emphasized the need for extending research on the outcome of treatment for substance misuse problems. The assessment scale is specifically tailored to assess the multifaceted needs of severely distressed patients and to identify specific areas for effective therapeutic interventions. The 46 items of the scale document functional deficits across all biopsychosocial functional domains in such a way as to capture the current state of overall functioning, whilst demonstrating specific areas of need. Thus, it can be used as both an indicator of current functioning for diagnostic assessment and as a repeated measure to demonstrate the changes that occur to patients throughout the clinical cycle.

Sciacca (1991) noted significant differences between various subpopulations of dually diagnosed patients (in both mental health and addiction treatment settings) that have an impact on treatment planning and service delivery for each patient population. The term dual diagnosis is somewhat broad and misleading (for example; mental illness and learning disabilities are dual diagnoses). The distinction between MISU, SUMI, and MCMU patients has a significant impact on the selection and use of a variety of intervention techniques and strategies. MISU patients generally present with symptoms of severe and enduring mental illness that has been complicated by the use of psychotopic substances. SUMI patients are characterized by their excessive use of psychotropic agents with the subsequent development of a concomitant severe and persistent mental illness. MCSU patients characteristically use large amounts of psychotropic agents in the presence of a long term or severe physical injury, illiness or ongoing medical condition. Traditionally, MISU patients have gravitated toward mental health treatment systems, SUMI patients have generally sought treatment in addiction treatment settings; while MCSU patients have relied on medical treatment facilities to seek therapeutic relief.

Each patient group with varying degrees of success (Bachrach, 1986-87). Mental illness, substance use/misuse and medical conditions must be approached differently for each group to achieve effective therapeutic outcomes (Sciacca, 1991). The severe and persistent mental illness of MISU patients make it difficult for them to engage in the motivational interviewing or more restrictive treatments often used in addiction treatment settings (Bachrach, 1984). On the other hand, SUMI and MCSU patients often require relief from the effects of addiction and withdrawal before they can fully focus on their treatment for the medical, psychological and social issues that have emerged or intensified as a result of their substance use. For this reason, the FAMHA was designed to assess individual differences in symptomatology, whilst differentiating these two populations on a functional level.

Effective treatment of MISU, SUMI and MCSU patients requires diagnostic clarification as the initial step in successful care planning. To address the problem of multiple diagnoses of mental illness, medical conditions and substance abuse, clinicians from addiction, medical, and psychiatric backgrounds must learn to make the clinical formulations for each of the concomitant disorders, using clear diagnostic standards and evidence based assessments. One of the principal goals of the FAMHA is to quantitatively measure the degree and intensity of mental illness and substance misuse. It also profiles the interactive effects of multiple disorders that must be explored on an individual basis. The consideration of which disorder came first, while perhaps etiologically important, should not interfere with the diagnosis and treatment of persistent conditions that exist and simultaneously interact on a functional level (Breakey, 1987; Miller, 1994). A major advantage of using the FAMHA is that it can be quickly and effectively administered to provide diagnostic indicators and monitor the effects of treatment over time.

The following list identifies many of the characteristics that distinguish MISU, SUMI and MCSU patients which can be quantitatively assessed on the FAMHA:

MISU Characteristics

1. Severe mental illness exists independently of substance abuse; persons would meet the diagnostic criteria of a major mental illness even if there were not a substance abuse problem present.

2. MISU persons have a DSM-IV-R, Axis I (American Psychiatric Association, 1987) diagnosis of a major psychiatric disorder, such as schizophrenia or major affective disorder.

3. MISU persons usually require medication to control their psychiatric illness; if medication is stopped, specific symptoms are likely to emerge or worsen.

4. Substance abuse may exacerbate acute psychiatric symptoms, but these symptoms generally persist beyond the withdrawal of the precipitating substance.

5. MISU persons, even when in remission, frequently display the residual effects of major psychiatric disorders (for example, schizophrenia), such as marked social isolation or withdrawal, blunted or inappropriate affect, and marked lack of initiative, interest, or energy. Evidence of these residual effects often differentiates MISU from populations of substance abusers who are not severely mentally ill.

SUMI Characteristics

- SUMI patients have severe substance dependence (alcoholism; heroin, cocaine,amphetamine, or other addictions), and frequently have multiple substance abuse and/or polysubstance abuse or addiction.
- 2. SUMI persons usually require treatment in alcohol or drug treatment programs. SUMI persons often have coexistent personality or character disorders.
- 3. SUMI patients may appear in the mental health system due to "toxic" or "substance-induced" acute psychotic symptoms that resemble the acute symptoms of a major psychiatric disorder. In this instance, the acute symptoms are always precipitated by substance abuse, and the patient does not have a primary Axis I major psychiatric disorder.
- 4. SUMI patients' acute symptoms remit completely after a period of abstinence or detoxification. This period is usually a few days or weeks, but occasionally may require months.
- 5. SUMI patients do not exhibit the residual effects of a major mental illness when acute symptoms are in remission.

(Sciacca, 1991, Chapter 6)

McSU Characteristics

- MCSU patients continued to use large amounts of substances even after their medical conditions have gone into remission or have been successfully treated.
- These patients begin using psychotropic agents in an effort to seek relief from physical pain due a medical condition.
- MCSU patients often have long term medical conditions (i.e. HIV, Heart Conditions, Autoimmune deficiencies, etc.) that reduces their level of physical functioning and makes them vulnerable to substance use disorder.
- The hopeless and helpless feelings associated with long term or severe medical conditions produce depressive states that are reduced by the use of intoxicating or pain relieving substances.
- The loss of physical function and range of motion often produces a reduction in psychological functioning and increases the reliance on pharmacological agents.

Development of the Scale

The FAMHA was developed with a variety of criteria in mind. To adequately assess MISU, SUMI, and MCSU patients in naturalistic settings, specific criteria developed by Green and Greely (1987) were applied to the scale as it was modified in development phases and pilot trials. It was felt that the FAMHA should not only assess the obvious symptom categories of major mental illness and addiction, but should also:

1. include functional domains that are deemed important for community based treatment clinics;
2. demonstrate reliability and validity;
3. possess sensitivity to treatment-related change;
4. be appropriate and relevant to the dually diagnosed population that it functionally assesses;
5. be a useful tool for treatment planning and clinical governance;
6. have low administration costs;
7. be relatively easy to use by all levels of clinical staff.

The current version of the FAMHA meets all of these criteria and can be administered in as little as 8 minutes by a trained, experienced rater. The FAMHA builds on the strengths of the Specific Level of Functioning scale (SLOF) (Schnieder & Struening - 1983), Symptom Checklist 90 (SCL-90R)(Derogatis, 1975), the Bellevue Psychiatric Audit (BPA)(Hardesty & Burdock, 1962) and the Addiction Severity Index, 5th Edition (ASI)(McLellan et al, 1997). It combines a variety of clinical and functional dimensions into a 46 item clinician rating scale that is subdivided into 6 biopsychosocial dimensions:

1. Socio-legal
2. Social – Community Living
3. Social – Interpersonal Skills
4. Mood
5. Psychological Functioning
6. Physical Functioning.

In addition to the dimensional scales, data as to the patient's primary and secondary drug of choice, alcohol consumption, prior mental health and addiction treatment episodes, demographics, and current medical, mental health and addiction diagnoses are also collected to add to the clarity of the diagnostic profile. It is expected that continued statistical analysis, including factor analyses of further trials, will yield more refined, discrete scale dimensions and add to the overall utility of the instrument.

Similar to the SLOF in appearance, the FAMHA uses a seven point, three way anchored Likert-like scale, ranging from extremely dysfunctional symptoms or behaviors (Score 1) to normative levels of these behaviors and symptoms (Score 7). The low end, mid-point and high points of functioning are anchored by descriptors for each item. This allows for enhanced interrater reliability and validity of patient / clinic-wide functional assessments. Like the SLOF and SCL-90R, each of the 46 items of the FAMHA is evaluated on the Likert-like scale. Due to the specific nature of each of these 46 functional items, the FAMHA assumes a high degree of assessor familiarity with the patient.

The scale was designed to quantify patient functional levels more systematically than the Global Assessment of Functioning (GAF)(APA, 1994) and provides for the systematic rating of functional deficits in critical areas of that could not otherwise be assessed in this population. In addition, FAMHA overall scores are designed with a coefficient that readily converts the total score to overall GAF scores. Thus, it refines the diagnostic profile for individual patients that is necessary for appropriate diagnosis within both ICD-10 (WHO-1996) and DSM-IV (APA 1994) diagnostic systems.

Validity and Reliability:

The concordance rates between the FAMHA total scores, sub-scores and GAF scores are currently in clinical trials and cannot yet be reported on. However, due to the high degree of similarity between the SLOF and the FAMHA, it is assumed that patient scores on each FAMHA dimension will significantly correlate with overall GAF scores and subscores. The SLOF concordance rates for the various

components were reported to be r=.67 for the social component, .60 for the psychological, and .50 for the physical component. Moderate associations were found between the SLOF substance abuse scale and the Drake et al. (1990) substance abuse scale (r=.73) (Uehara et al. 1994). This concordance rate should be mirrored in the FAMHA, since most of these specific SLOF items are embedded in the FAMHA as well.

Further clinical trials should conclusively demonstrate the usefulness of combining level of functioning information across mental health and addiction dimensions and ultimately, validate the FAMHA as an ideal instrument for assessing dually diagnosed patients in mental health and addiction treatment settings.

Conclusion:

The FAMHA documents the outcomes of treatment by quantifying the substantial and enduring changes in client behaviors, cognitions, moods and day-to-day client functioning It also notes reductions in distress due to the effects of treatment. By determining a client's specific level of functioning across a number of domains and an overall level of functioning. specific profile emerge that can then be used for more effective treatment planning. FAMHA assessments are client centered by their very nature and specifically relate to the distress and difficulties that each patient must endure in their daily lives. Thus, such assessments are crucial to a clients mental health, substance use, and medical recovery.

The FAMHA was designed to meet the specific clinical and research needs of practitioners/researchers in a wide variety of treatment settings. From the data currently available, it is clear that the FAMHA is a sensitive diagnostic tool for use with MISU, SUMI and MCSU patients. It's ability to document functional changes that occur throughout the treatment cycle and utility as a basic research tool to obtain specific epidemiological and diagnostic information make it an ideal instrument for use with on this severely dysfunctional and distressed population.

Download the FAMHA

Download FAMHA Administration Guidelines

Download an Analysis of Functional Assessment Scales

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FAMHA

Functional Assessment of Mental Health and Addiction

Administration Guidelines

Introduction:

The Functional Assessment of Mental Health and Addiction (FAMHA) is a clinician rating scale that was specifically designed to assess current level of biopsychosocial functioning in dually diagnosed patients across a broad range of symptom and functional domains. It was developed in response to clinical and outcome research goals identified by the U.K. Department of Health (1996), which emphasized the need for extending research on the outcome of treatment for mental illness and substance misuse problems. The assessment scale is specifically tailored to assess the multifaceted needs of severely distressed, multiple needs patients and to identify specific areas for effective therapeutic interventions. Such assessments can also be used to monitor progress throughout the treatment cycle and specific outcomes of treatment for this population.

The 44 items of the scale document functional deficits across substance misuse - criminality, community living, interpersonal functioning, mood, psychological and health-physical levels of functioning in such a way as to capture the current state of overall functioning while demonstrating specific areas of therapeutic and rehabilitative need. Thus, the FAMHA is designed as both an indicator of the patient's current individual level of functioning for diagnostic assessment and care/treatment planning, and as a repeated measure to demonstrate the changes that occur to patients throughout the treatment cycle and into community aftercare. Consequently, the FAMHA has direct applications in treatment outcome research.

The individual items that are assessed with the FAMHA were designed around clusters (dimensions) of symptom presentations and functional skills. Since sub-populations within the broad spectrum of dually diagnosed patients appear to respond more effectively to different treatment modalities, it was important to structure the FAMHA in such a way as to allow individual symptom constellations or bundles of symptoms to emerge in such a way as to readily identify not only the final individual profile of low functioning areas, but also position the patient into the appropriate sub-population as well.

Administration

Any member of clinical staff who has been trained to perform clinical assessments on patients is qualified to administer the FAMHA. The instrument was designed to capture critical aspects of patient functioning that become apparent or are elicited during a standard clinical interview. Thus, it assumes an in-depth clinical understanding of the patient, their characteristics, and their circumstances. Since the FAMHA was designed to be used in conjunction with a standard clinical interview, it relies on the interviewing skills of the clinician rater to explore patient functioning with sufficient scope and depth to obtain enough data with which to score the instrument. The subjective clinical opinion of the rater on each item is numerically scored to quantify the patient's functional level on each item.

Similar in appearance to the other functional assessment scales, the FAMHA uses a seven point, three way anchored Likert-like scale, ranging from extremely dysfunctional symptoms or behaviors (Score 1) to normative levels of these behaviors and symptoms (Score 7). The low end, mid-point and high points of functioning are anchored by descriptors for each item. This allows for enhanced interrater reliability and validity of patient / clinic-wide functional assessments.

The scale was designed to quantify patient functional levels for dually diagnosed patients more systematically than the Global Assessment of Functioning (GAF)(APA, 1994) and provides for the systematic rating of functional deficits in critical areas of that would not otherwise be assessed in this population. In addition, FAMHA overall scores are designed with a coefficient that readily converts the total score to overall functioning scores. By summing each of the individual items in a particular dimension, a dimension subscore can be obtained and entered in the space provided. Summing each of the dimensional subscores will yield and overall level of functioning score. In this way, the FAMHA refines the diagnostic profile for individual patients and is therefore an aid in making an appropriate differential diagnosis for dually diagnosed patients.

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Definition of Individual Items:

(All items are scored for frequency and intensity of the symptom during the previous 7 Day period.)

Demographics

Enter the patient's last name, first name; clinical location; age; sex; education in years; ethnicity (approximate); and number of previous treatment episodes. In the Drug and Alcohol use boxes, enter the type and amount of alcohol and drug use. Note that alcohol quantity is entered in alcohol units.

Substance Misuse and Criminality

*Item 1. Life Threatening level of drug/alcohol use.*This item assesses the immediate danger to the patient's life. Life threatening behaviours may include dangerously high levels of drug or alcohol use that could immediately threaten the patient's life, or could also mean dangerous binge use episodes of drug or alcohol.

Item 2. Daily intoxication. Barely noticeable levels of intoxication would received a mild rating, or intermittent frequencies of low levels of intoxication should be scored in the mild range. Daily severe or intermittently severe intoxication should be score in the low functioning range.

Item 3. Serious legal difficulties. Low functioning on this item would include pending cases or recent arrest for criminal assault, drug dealing, etc. Mild levels on this item would include such crimes as shoplifting, possession of a controlled substance, etc.

Item 4. Regularly engages in the illegal sale of drugs. The low end of functioning on this item refers to career drug dealers, while the mid point is generally reserved for those who only occasionally deal to maintain their addiction or opportunistically deal drugs to ease their financial situations.

Item 5. Destroys property of others – The lowest end of functioning refers to the chronic, malicious destruction of property, i.e. vandalism. The midpoint is reserved for occasional or situationally specific destruction property.

Item 6. *Steals good from others almost daily.* – Low functioning on this item would be satisfied by chronic shoplifting to obtain drug/alcohol funds. The midpoint would be scored if this is only an occasional or binge of illegal theft of goods.

Item 7. *Assaultive and/or physically threatening* – Chronic, daily assaultive or threats of assault would score rate a very low functioning score on this item, while only situationally specific or sporadic threats/assaults would rate the midpoint.

Community Living Skills

Item 8*. No Income (Any Source)* – This item is self explanatory

Item 9. *No evidence of budgeting skills*. - A low functioning score on this item would be indicated if the individual could not compute his income and expenses even verbally. The midpoint would be rated if the patient could at least identify his daily/weekly expenses and how that related to his/her income.

Item 10. *No stable housing*. - The lowest level of functioning on this item is reserved for the homeless or functionally homeless (i.e. living in abandoned buildings). The midpoint of this item would be indicated if the individual had marginal housing resources (i.e. friends or associates he/she could temporarily stay with).

Item 11. *Children in foster or institutional care* – This item is self explanatory

Item 12. *Has sold/given away most possessions* – The low point of functioning on this item would be indicated by homeless patients who had given away all clothing and possessions. The midpoint is reserved for those who sell their possessions to either obtain funds for drugs/alcohol or for basic necessities.

Interpersonal Skills

Item 13. *No significant intimate relationships* – The low end of functioning for this item would be rated if the individual has had not significant relationships for an extended period of time (beyond the 7 day period of this

scale). The midpoint would be indicated if there was a significant relationship in the recent past. I.e. (past two months).

Item 14. *Rejects contact with others* – Isolative and withdrawn patients who reject the company of others would be scored in the low functioning range for this item.

Item 15. *Extremely withdrawn and socially isolated* – Low functioning would be indicated by individuals who are constantly withdrawn. Midrange is indicated for those who are only sporadically withdrawn.

Item 16. *Guarded or evasive* – This item refers to a behavioral observation from the rater. How is the patient upon presentation.

Item 17. *Verbally aggressive or threatening to all*. – This item refers to direct observation of aggressive or verbally aggressive behaviour or patient self reports of such behaviors with the past 7 days.

Item 18. *Excessive Dependence on Others* – This item also refers to a direct observation or patient self reports of what the rater feels are excessive dependent behaviors.

Mood

Item 19. *Appears agitated or jumpy* – This is a bahavioural observation made by the rater. However, self reports of agitation or jumpiness could indicate a midrange score.

Item 20. *Conveys feelings of hopelessness*. – Verbal or Behavioral expressions of what the rater feels are hopeless and helpless ideations/feelings. Again its the subjective opinion of the clinical rater to determine how sever the patient is.

Item 21. *Expresses only sadness or despair* – The rating for this item can be based on a bahavioural observation or verbal expressions by the patient.

Item 22. *Considering a suicide plan* – This must be verbally elicited by the patient for both low and mid-range scores on this item.

Item 23. *Extreme and or sudden mood shifts*. – Again, this item can be scored by either verbal reports from the patient, or bahavioural observations by the rater.

Psychological State

Items 24-36 – These items rate functioning on a cognitive and bahavioural level. As such, they can be rated from either direct, elicited verbal reports from the patient or from the clinical observations of the rater. As most of the items in this section are self explanatory, no additional description is deemed necessary for the purposes of completing this scale.

Health and Physical Functioning

Items 37 – 46. These items are primarily bahavioural in nature and relate directly to recent health and physical functioning. Though functioning on the items relating to appetite, sleep and sexual practices can only be assessed through patient self report, the detailed behaviours that are implied in each of these items are assessed on a behavioural basis by the rater for degree of dysfunction on each item.

Scoring:

Sum each of the items in each section and enter the total for the section in the Subscore section (i.e. if the 5 items,19 to 23, are all scored 6, the total would be 30). Next Sum each of the subscore sections and enter them in the ‘SUM RESPONSES TO ALL 46 ITEMS’ section at the end of the scale. Divide this sum total by 3.08 to obtain the ‘TOTAL SCORE’.

Finally, enter past or current primary mental health, primary substance misuse and medical diagnoses in the appropriate boxes at the end of the scale. Enter the name of the rater and the assessment date below the diagnoses.

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FAMHA

Functional Assessment of Mental Health & Addiction

Version 2.02

This scale assesses the current state of client functioning from both mental health & addiction perspectives. As a clinician rating scale, it is important that you score your client's specific level of functioning according to the guidelines and anchors presented in the scale. Your subjective rating and assessment of functioning across items and dimensions will produce overall profiles and quantified functioning levels that can be used to track treatment progress on specific mental health and addiction indicators.

Name _____

Location _____

Age _____ ***Sex*** _____ ***Education (years)*** _____

Ethnic Background _____

Number of Previous Treatment Episodes _____

Addiction Treatment Episodes (acute care/detox) _____

Mental Health Treatment Episodes (acute care) _____

(Episodes include both inpatient and residential treatment)

Drug & Alcohol use during the past 7 days

Drug(s) Primary & Secondary	*Daily Amount*	*7 Day Frequency*	*Average Daily Drug Use (7 day freq./7)*

Alcohol (type) *Daily Amount*	*Daily Units*	*Frequency*	*Total Weekly Alcohol Units*

Please circle the number that most appropriately corresponds to the patient's specific level of functioning over the past 7day peri

Level of Functioning

	Low			Moderate			High	
Socio-legal								***Subscore (Sum 1 - 7)*** ____
1. Life threatening level of drug/ETOH use	1	2	3	4	5	6	7	No misuse of drugs or alcohol
	4 – Stable/consistant, non-life threatening drug use							
2. Daily intoxication (Drug or ETOH)	1	2	3	4	5	6	7	No evidence of intoxication
	4 – Intoxicated 2 days out of 5							
3. Serious legal difficulties	1	2	3	4	5	6	7	No legal difficulties
	4– Pending trial for possession or minor offenses							
4. Regularly engages in illegal sale of drugs	1	2	3	4	5	6	7	No illegal sale of drugs
	4 – Occasionally sells illegal substances							
5. Destroys property of others	1	2	3	4	5	6	7	No property related issues
	4 – Has recently defaced property or has thoughts of damaging property of others							
6. Steals goods from others almost daily	1	2	3	4	5	6	7	No evidence of theft
	4 – Recently stole goods but doesn't generally do so							
7. Assaultive and/or physically threatening	1	2	3	4	5	6	7	No assaultive or threatening behavior
	4 – Occasionally assaultive or selective in who they assault							
Social								
Community Living:								***Subscore (Sum 8 - 11)*** ____
8. No Income (Any Source)	1	2	3	4	5	6	7	Stable source of income
	4 –Some financial support, but low level or indefinite							
9. No stable housing	1	2	3	4	5	6	7	Maintains stable housing (self/friend)
	4 –Marginally housed or has no long term housing arrangement							
10. Children in foster or institutional care	1	2	3	4	5	6	7	Independently provides good care for childre
	4 – Parenting skills under review by social services							
11. Has sold/given away most possessions	1	2	3	4	5	6	7	Values and retains possessions
	4 – Has sold some possessions to obtain funds							
Interpersonal Skills:								***Subscore (Sum 12 - 17)*** ____
12. No significant intimate relationships	1	2	3	4	5	6	7	Significant Intimate Relationship
	4 – Has recently had a significant relationship							
13. Rejects contact with others	1	2	3	4	5	6	7	Readily accepts personal contact
	4 – Sometimes accepts social advances							
14. Extremely withdrawn & socially isolated	1	2	3	4	5	6	7	Readily engages in social activities
	4 – Isolative and withdrawn for limited periods of time							
15. Guarded or evasive	1	2	3	4	5	6	7	Interacts appropriately with examiner
	4 – Evasive or guarded over specific issues							
16. Verbally aggressive or threatening to all	1	2	3	4	5	6	7	Never threatening or verbally aggressive
	4 – Inappropriate verbal aggression with specific persons							
17. Excessive Dependence on Others	1	2	3	4	5	6	7	Autonomous & Independent
	4 – Somewhat Dependent							

Note: If in your opinion a specific item does not apply, score that item as 7.

FAMHA continues on Page 2

Please circle the number that most appropriately corresponds to the patient's specific level of functioning over the past 7 day period.

Level of Functioning

	Low			Moderate			High	
Mood:								***Subscore (Sum 18 - 22)*** ____
18. Appears agitated or jumpy	1	2	3	4	5	6	7	Feeling calm and at peace
	4 – Occasionally agitated or jittery							

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THE NEW AND PROPOSED DIAGNOSIS OF "SUBSTANCE DEPENDENCY-INDUCED PSYCHOSIS"

Norman Jay Gersabeck, M.D.

ADDITIONAL INFORMATION ON SDIP: www.rust.net/~norman/

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"Substance dependency-induced psychosis" (SDIP) is a very common type of functional psychosis that is caused by a substance dependency. All the cases of SDIP I have treated already had other psychotic diagnoses made (mainly schizophrenia) by other psychiatrists. SDIP is quite similar to schizophrenia in its symptoms, signs and psychodynamics. I could categorize it as a subtype of schizophrenia, but doing so would have had the disadvantage of minimizing the
important differences between the two diagnoses. One difference is that most persons with a SDIP would never have developed any type of psychosis without the "help" of a preexisting substance dependency. This agrees with the fact that the average SDIP person is less ill than the average schizophrenic person. The most significant difference lies in the better treatment opportunities for the SDIP person.

An article in "Lancet" (12/26/87) reported on a Swedish study which revealed that, among army conscripts, heavy cannabis users later developed what was diagnosed as schizophrenia at a rate almost six times that for non-users. It was also determined that the premorbid personalities of the users were significantly better than the non-users, who were also so diagnosed. These findings correlate well with my finding that the SDIP-afflicted persons are usually less ill than thosetruly suffering from schizophrenia. It also implies that genetic factors in SDIP are
very minimal.

Gary Forrest, in his book "Alcoholism, Narcissism and Psychopathology" wrote that "alcoholic persons very seldom evidence a schizophrenic adjustment prior to the onset of their alcoholism." He also noted that approximately 8-12% of alcoholic persons show psychotic symptoms during the initial two or three months of recovery.

To speak of the potentially great power of an addiction is not to be unscientific. This power is very real, and is capable of wreaking great and usually negative changes in a person's thoughts, feelings and behavior. For example, a sane and intelligent alcoholic man may knowingly and literally be drinking himself to death. Despite not wanting to die, he may still go on to actually kill himself this way. It is both logical and scientific to reason that this same compulsive power
could be employed somewhat differently within the mind to, instead, produce a psychosis. Of course, as an addiction, substance dependency has strong and intimate connections with non-substance addictions, like compulsive gambling. However, the latter are very much less likely to be a critical factor in causing a functional psychosis. Only part of the reason for this are the pharmacological effects of the various

substances. The complex psychodynamic factors attached to the actual intake of the substance into the body are also important.

Actual or potential psychological regression is an important aspect of any substance dependency, and the behavior of many substance addicts gives clear evidence of this. Regression is a necessary correlate to the development of a irrational and largely unconscious symbolization and powerful overvaluation of the substance- and it is this that constitutes the learning process of becoming addicted. Enough regression can produce a psychotic degree of regression- or, in short, a psychosis. The usual result of a substance dependent person stopping the use of the addictive substance is a lessened degree of regression and, therefore, better functioning. But for some substance dependent persons the result can, instead, be the reverse. For example, in the case of an alcoholic person who reluctantly feels he must quit drinking after a second or third DWI offense, his powerful and regressive narcissistic aspect of the "self" may, in effect, refuse to give up its power level within the "self" that alcohol had previously facilitated. The development of a psychosis leads to the preferred alternative.

The powerful cause-and-effect relationship between a dependency and a resulting functional psychosis makes available an additional type of treatment for the SDIP person. An individualized type of substance dependency therapy, used in the context of its causal role in the psychosis, can be very effective for many patients. To be eligible for the treatment, patients must be motivated for improvement. They must also have an open mind for both having a substance dependency, and its possible role in having caused their psychosis. Substance dependency therapy here has the real advantage of being of a specific nature. This means that it is
capable of treating the core or basic cause of the disorder. Weekly outpatient psychotherapy sessions lasting from 3-12 months have been the rule. The therapist needs to be knowledgeable about substance dependency, psychotic illnesses, and dynamic psychotherapy. Sadly, very few mental health professionals have an adequate understanding of substance dependency.

In contrast, the only-symptomatic treatment of antipsychotic medication is essentially the only treatment that is available for the "true schizophrenic" person. This medication treatment is often quite effective, but it is associated with frequent and sometimes very serious side effects. The Harvard psychiatrist, Joseph Glenmullen remarked in a general fashion on this matter when he wrote (somewhat hopefully): "The psychiatric profession is now recognizing the limitations of the symptomatic use of antipsychotic medications and the value of psychotherapy in helping schizophrenic and other psychotic-prone individuals regain human connection in their lives."

Almost all of the patients who qualified for outpatient treatment of their SDIP illnesses experienced better functioning and a lesser need for medication than had been the case with their earlier diagnoses. Much more impressive is the fact that, in my experience, fully one-third of these patients eventually enjoyed a full remission of all psychotic symptoms. This means they no longer needed any antipsychotic medication and returned to normal functioning. The chances were then good that their remission would be a permanent one, provided they continue to abstain from all addictive substance use (except, often for cigarettes). AA or NA membership is also usually advisable to maintain remission.

The more chronic the substance dependency is, and the more substances are involved, the greater the likelihood is that there will eventually be a SDIP complication. The chance that any particular substance dependent person will eventually develop a SDIP complication is relatively small- but having the dependency at least doubles this likelihood. The nature and severity of the resultant psychosis doesn't seem to depend much on the particular addictive substance involved. Alcohol, marijuana and

cocaine appear to be equally likely to cause a SDIP. Not surprisingly, alcoholism is the most common cause.

The onset of the psychosis most often occurs while the person is still using the substance, or is in the process of discontinuing or reducing it. The intervening period between stopping the use of the substance and the onset of a SDIP psychosis is not limited- but a case of SDIP rarely occurs beyond six months from the last use of the substance. A relatively common type of onset of a SDIP provides a very good clue to the diagnosis. These are cases where a person suffers his or her first psychotic symptoms and signs very shortly after a return to use of the substance. This usually involves moderate levels of intake, and occurs after a significant period of abstinence. The period of abstinence is often motivated for purposes of denial of the dependency.

To make the diagnosis of a SDIP, one must prove the existence of a substance dependency prior to the first (ever) signs or symptoms of a psychotic illness. This itself, doesn't make the diagnosis- but it does mean that a SDIP is rather likely. Of course, there can't be signs of an organic psychosis, such as delirium. The dependency diagnosis in most SDIP cases has not yet been made. Even in state hospitals that have a M.I./S.D. (mental illness/substance dependency) ward, many SDIP patients will be found on other wards. In making the diagnosis, it is important to find indications of temporal and symptomatic linkage between the practice of the addiction and the onset of the psychosis.

In outpatient populations of schizophrenic persons, one frequently finds occasional and usually very moderate use of addictive substances. Combined with the almost-always present history of a preexisting substance dependency, such behavior is an important clue to the presence of a SDIP. This use is always against medical advice. The finding of a person stopping the use of medication and resuming daily use of addictive substances virtually makes the diagnosis of a SDIP. Another important clue to the presence of SDIP is the finding that the person's desire for the substance has greatly diminished or even disappeared with the initial onset of the psychosis. As the psychosis lessens, the desire partially returns. These findings correlate with similar findings sometimes noted in the acute onset of depression in some substance dependents.

A few years ago, psychiatrist Norman Miller of the University of Illinois cited in a journal article of an incidence of 80% of state hospital patients with a schizophrenic diagnosis having an associated diagnosis of a substance dependency. A majority of these dual diagnosis cases actually have a SDIP, rather than a schizophrenic illness. Ordinarily, most of these dependency diagnoses wouldn't have been even made. One of the reasons for this is that the onset of the psychosis always helps to hide the dependency because of the resulting decreased desire and intake of the substance.

I fully agree with the psychiatrist's statistic, but not with his not-stated, but still obvious assumption concerning the sequence of the two disorders. He even posed the question as to "why so many mentally ill persons would be so prone to abuse alcohol and drugs." He uncritically went along with the "conventional psychiatric wisdom" on the subject. This "wisdom" erroneously holds that, in such dual diagnosis cases, the mental illness comes first. But this sequence can be easily disproved by simply taking a good history. Accepting this sequence conveniently avoids any consideration of the "much less biological," but
otherwise obvious possibility that the dependency could be causing the psychoses. I was disappointed, but not surprised, when he failed to answer either of two letters I sent him. In them, I attempted to answer "his question" by disputing his assumption about the dual diagnosis sequence- and its implications.

The origin of the current and predominant "biological psychiatric philosophy" has reflected the better understanding of neurophysiology, and the development of many worthwhile psychoactive medications. (I always use quotation marks for "biological" in this context because its true meaning is being abused.) Ironically, the desire to be more scientific has resulted in the introduction of a very subtle, but still troublesome ideological element into "biological psychiatry."

The influence of "biological psychiatry" has had the very regrettable effect of eliminating any training in psychotherapy at many psychiatric training programs. This anti-psychological action obviously implies the belief that the complex and basic functioning of our minds is, somehow, "not really biological." In other words, "biological psychiatry" regards our hopes, fears, beliefs, and experiences as not being particularly important in the development of mental disorders . Instead, it greatly exaggerates the importance of genetic factors, which are expressed in "biochemical imbalances." This emphasis has been at the cost of largely ignoring the important emerging science of information processing- which, of course, intimately relates to psychology. Psychiatrist David Kaiser M.D. wrote an excellent essay for the "Psychiatric Times" (Dec 96) which was very critical of "biological psychiatry." It was entitled: "Not By Chemicals Alone: A
Hard Look At Psychiatric Medicine."

In his book, "Psychology of Science," the renowned psychologist Abraham Maslow strongly doubted that physical science could be an adequate model for behavioral science. The physicist Fritjof Capra, in his excellent book "The Turning Point," agreed with Maslow and cited the need for a paradigm shift away from the biomedical model- and especially so for psychiatry. He wrote: "The overwhelming majority of illnesses cannot be understood in terms of the reductionist concepts of well-defined disease entities and single causes. The main error of the biomedical approach is the confusion between disease processes and disease origins- with neglect of the latter."

I am quite aware that I can be criticized for "unnecessarily being polemical for introducing the issue of 'biological psychiatry'" into a paper on the SDIP diagnosis. But it has been a hard reality that this psychiatric philosophy has been responsible for effectively, though largely passively, opposing the establishment of the SDIP diagnosis. Though there are other opposing factors, it has been by far the most important one. My now being in the position of conceiving of and championing the diagnosis is not the result of any brilliance on my part. Rather it is the strength of these opposing factors which has resulted in this diagnosis not having been established many years ago by others.

A few years ago, I received a very interesting report from a substance dependency therapist at a state hospital M.I/S.D. ward. She reported that, in somewhat over half of such dual diagnosis cases, the addiction clearly came first. However, for "biological psychiatrists" the significance of this finding is largely negated by the convenient "biological understanding" regarding this sequence. It is that most cases of schizophrenia and substance abuse start incubating about the same time in the late teens. Therefore, the substance abuse/dependency is considered to be merely secondary to the underlying subclinical schizophrenic processes at work.

There was a journal article ("Journal of Hospital and Community Psychiatry") which reported on the fact that 70% of persons with the diagnosis of schizophrenia at an inner city emergency room tested positive for cocaine use by urine tests. I felt that the conclusion of the authors of the article that the mental illness preceded the cocaine use was an exercise in "tortured ideological and automatic conformist thinking." It certainly didn't reflect any effort at
history-taking of these persons.

A very probable correlate of this incidence is the recently reported increased rate of schizophrenia diagnoses among inner city black males- but not females. This increase was reported in the context of a nationwide decrease in this rate. Inner city black males have been increasingly using a lot of addictive drugs-significantly more than the females. This gender discrepancy indicates two things about the males' increase in these diagnoses. One is the that increased stress of inner city life is not the reason. Since the females share the same basic gene pool with the males, this rules out genetic factors as explaining the gender discrepancy. In short, this finding goes against the "biological theorizing" that similar genetic factors that cause schizophrenia also cause the associated substance abuse/dependencies. Therefore, the latter can't be dismissed as very likely causal factors for the substance abuse-related functional psychoses, that are currently diagnosed as schizophrenic. The SDIP diagnosis is the best answer to this puzzle.

Another indirect support for the SDIP diagnosis is the recent establishment of the DSM-IV "substance-induced psychosis" (SIP) diagnosis. It is a highly flawed diagnosis, as it should have been limited to non-addictive substances (for example, prednisone). Yet, in practice, nearly all of such diagnoses made are associated with both an addictive substance and a dependency. Just as the two diagnostic names differ only in one word, their theory and practice accurately reflect this difference. The SIP diagnosis is a "biologically/politically correct" one which holds that its psychoses are completely a result of "direct physical effects of the substance." The SIP diagnosis also has the "biological advantage" of not encroaching at all on the diagnosis of schizophrenia- as the SDIP diagnosis definitely does. Significantly, the criteria of the SIP diagnosis completely ignore the issue of substance dependency. There are only the usual connotations of the term "substance" to tie it in to the subject of substance dependency.

The real etiology of addictive substance-related psychoses (SIP and SDIP), necessarily, is much more complex than the simplistic or reductionist reasoning behind the SIP diagnosis could possibly ever explain. Some idea of the problems with this type of thinking in relation to substance dependency is shown by an example. The same alcoholic man can react very differently to the same amount of alcohol, depending on the "set and the setting." He may respond with: somnolence in a library; tears at a sentimental movie; belligerence at a bar; being
the "life of a party;" being sexually passionate in the back seat of a car. Because of the SIP's theoretical "biological premise," the SIP diagnosis, necessarily, has the criteria of two very arbitrary 30-day time limits. It can't persist or have its onset from the last use of the substance occur any longer than that period of time. In contrast, the SDIP diagnosis can be quite brief, or last a lifetime. The latter can even happen when the person never uses the substance again.

The SIP diagnosis itself doesn't necessarily lead to the diagnosis of the usually-associated dependency, or not surprisingly, to its rational treatment. In short, in the case of addictive substance-related psychoses, the SDIP diagnosis would nearly always be much more appropriate to use than a SIP diagnosis. It would also apply to many more cases. An alcoholic man whose illness qualifies for the SIP diagnosis is likely to be simply advised by his psychiatrist to either avoid alcohol- or to just significantly limit his intake (because of his supposed increased "biochemical sensitivity" to it). It is the existence of the dependency
itself, whether active or not, which is the basic cause of a SDIP.

I first used the SDIP diagnosis 25 years ago for a 47 year-old alcoholic auto executive who had an uneventful stay at the substance dependency hospital where I was the psychiatric consultant. He had no other history for any psychiatric disorders. He was doing well in his recovery with AA as his only

therapy. But three months into his recovery, an older brother unexpectedly died. The morning after hearing this, he awoke in a confused state and told his wife: "I'm afraid my car will tell my employer that I want to drink." (He drove a company car and his employer didn't want him to drink alcohol.) If his brother had died a few months further into his recovery, he likely would have been able to avoid a psychosis.

I took over his case a week after he was hospitalized, when his wife learned that I was on the staff of the same psychiatric hospital where he was admitted. She wisely realized that it would likely be advantageous for him to be treated by a psychiatrist who was knowledgeable about alcoholism. He had already been diagnosed as schizophrenic by the psychiatrist on call. With the help of medication, he was fully lucid by this time. He was an intelligent man and accepted my very serendipitous diagnosis. This was despite my telling him it was far from being an official diagnosis. My making the diagnosis was prompted by his delusion, and the fact that he was still early in his recovery.

He was able to safely get off all medication after about six months of weekly outpatient psychotherapy. He had to be persuaded to stop his low dosage of medication. Within a few days, he was finally feeling like his old self. This result was clearly a lot more than just the straightforward physiological effects of the medication being discontinued. Substance dependent persons are always strong placebo reactors. Besides no longer being needed, the medication had assumed a negative placebo role for him. He also experienced a strong desire to drink for the first time in a year.. Fortunately, it didn't last long, and he coped well with it. His medication had been vitally important to him- but it finally become a detriment to him.

He continued to function well, and for the remaining 15 years of his life, never took another drink, or had any return of psychotic symptoms. This outcome was facilitated by his regular AA attendance and his knowledge that any alcohol or other substance use would very likely cause a return of mental illness. This knowledge was a much more powerful motivation for abstinence than the standard psychiatric advice given to substance-abusing "schizophrenic" patients. It is simply that of avoiding addictive substances because they interfere with the treatment of the illness- which as far as it goes, is true.

A 35 year-old man suffered a relapse in his 14 year history of psychosis which resulted in a four-month and fourth hospitalization. I first saw him shortly after his discharge. He claimed his "going berserk," which required hospitalization, was caused by his exposure to "wood alcohol fumes," of unknown origin. He denied any history for substance abuse. It wasn't until months and considerable improvement later that he admitted he had used both alcohol and marijuana heavily from ages 16-19. During his first year of college, he abstained from both substances for six months. This followed a religious experience at church. He then suffered his first signs and symptoms of psychosis very shortly after his cautious return to substance use. He finally got honest with me after I suggested that the meaning of his "wood alcohol fumes" delusion was likely related to the fact that this type of alcohol was poisonous. Therefore, it could well symbolize "bad alcohol." This was in contrast to his predominant and earlier unconscious labeling of "good alcohol" that had characterized his early alcoholism. He alsotold me that he had drank two cans of beer before he "went berserk." This was the first alcohol he had drank in months.

A 30 year-old woman had experienced a SDIP (by history) of three months duration, where alcohol was the main problem. Twelve years later (with occasional moderate drinking) she experienced two episodes of having "crazy thoughts" which lasted only a few hours. On each occasion, the symptoms started within several hours of the "last cigarette," during an attempt to stop smoking. Each time the

symptoms abated almost immediately, following her resumption ofsmoking several hours later. Clearly, these psychotic symptoms were not a result of a straightforward (biochemical) nicotine withdrawal. Instead it was her serious intention to quit smoking itself which was the critical precipitating factor. This mechanism correlates well with a SDIP, but not a SIP diagnosis.

A 25 year-old man with multiple alcoholism-induced brief psychotic episodes stated that either drinking alcohol or being psychotic had the (seductive) effect of making him "feel powerful and important." Nearly all of his psychotic episodes were caused by drinking alcohol and/or conflict about alcohol. One episode occurred as he was clearly getting ever closer to the "first drink," after three months of sobriety. These episodes finally stopped when he really got serious about recovery from his alcoholism.

The National Alliance for the Mentally Ill (NAMI) is an advocacy organization for persons who largely have schizophrenic diagnoses. Many NAMI members and recovering alcoholic persons share an antipathy towards the SDIP diagnosis. The great irony here is that neither group likes the idea of any intimate relationship as possibly existing between the disorders of substance dependency and schizophrenia-like psychoses. The NAMI members equate such a relationship as implying an unwanted and pejorative "self-inflicted" element to a psychotic illness or disease. A reverse prejudice is held by the alcohol group. They dislike the mere idea of any close association of alcoholism with any serious psychiatric illness being possible. Unfortunately, these "not nice" perceptions of the SDIP diagnosis work against the "really nice" advantages of being able to correctly make the diagnosis.

There is a former alcoholic patient of mine who has 24 years of good recovery. She has had to be strong to deal with her 32 year-old son's disabling mental illness. Aided and abetted by a very dysfunctional family background, he had started to regularly use alcohol and marijuana in his mid-teens. He was diagnosed as being schizophrenic in his early twenties, and has been on SSI ever since. She first contacted me a couple of years ago about her son. I told her then there was a good chance that he had a SDIP, rather than a schizophrenic illness. She was open to this possibility. She later understood and fully accepted my reasoning in telling her that, even without examining him, I was now virtually certain of his having a SDIP illness. This greater certainty was due to my learning that he had recently stopped his medication and started drinking alcohol daily for two months. Then he was involved in a drunken auto accident, in which he left the scene. Interestingly, his functioning didn't suffer during this time. But it certainly would have done so, if he hadn't then stopped drinking and resumed his medication.

It is a sure thing that the SDIP diagnosis will eventually become established. I am laboring to see that this occurs sooner, rather than later. If the diagnosis had been available when the woman's son first became psychotic, the chances are fairly good that he would now be living a relatively happy and productive life. Sadly, the son refused his mother's advice that he consult with me. His is a good example of the great amount of needless human suffering that is still occurring for lack of the diagnosis having yet become established.

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An Impact Evaluation Model and Quality Improvement Mechanism for Mental Health Programs in Developing Countries

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Abstract: *Discusses the rationale for using responsive evaluation in mental health and substance abuse programs. Demonstrates the need to include both standard and local indicators in evaluation studies and how this can be used by all the stakeholders of a program to continue the quality improvement initiatives of any mental health program in a way that incorporates all levels of data and opinions. Presents and actual evaluation proposal and instruments in both Spanish and English.*

An Impact Evaluation Model and Quality Improvement Mechanism for Mental Health Programs in Developing Countries

In both mental health and substance abuse treatment, it may be that there are no resistant patients; only resistant programs and clinicians, who are reluctant to change their mode of service delivery to meet their patient's needs. To determine the extent to which programs and service models meet the needs of patients, program evaluations must be performed to assess the impact of the entire program and therapeutic environment (Anderson, 1997). Only then can rates of efficacy and effectiveness be objectively determined and improvements panned, initiated and reviewed to continue the improvement of services over time. Thus, program evaluation and continuous quality improvement can be incorporated into a comprehensive quality of care mechanism to more closely match services with the changing needs of patients, families, funding sources and all other stakeholders over time (Guba and Lincoln, 1981, 1989).

This brief article details a strategy of program evaluation and quality improvement that has been successfully used in programs located in the United States and in Honduras (Anderson, 1997a). Written as a program research proposal, the following outline proposals and associated instruments serve as tools that can be applied to almost any mental health or substance abuse program setting.

This evaluation strategy consists of two groups of indicators; standard and local indicators. Standard indicators, listed below, were developed in such a way as to be applicable to all mental health programs. Generally, these indicators are analyzed by a skilled evaluator who can statistically manipulated the large volume of program, demographic and clinical data. However, for the purposes of determining treatment benefits on a programmatic level, simple descriptive statistics can be used on these indicators to demonstrate levels of programmatic efficacy. Local indicators are patient, infrastructure, process or other program characteristics that are mutually agreed upon for study by all the stakeholders of a program. These stakeholders include clinicians, administrators, funding sources, families and of course patient representatives.

The local indicators allow all the stakeholders of the program to determine what additional indicators are needed to demonstrate their program's effectiveness. As the data from both sets of indicators is accumulated monthly or quarterly, trends develop which require actions from some or all of the stakeholders to improve that area of the program. Once problems have been resolved, new indicators

can be developed to continue the positive change process. Over time, this process serves to continually improve patient services and match treatment to the needs of the patient, instead of matching the patient to the needs of the program.

T1 ---T2--T3------------->

Collaboration ------>measure------>Data Reporting & Action ------->measure----->Data Rept. & Action----->

The following evaluation proposal and tools serve only as a model. Please feel free to use all or part of it and the associated instruments for any evaluation project you wish to undertake. I have provided the proposal in both English and Spanish for your convenience. Though originally written for programs that treat mentally ill chemical abusers in Honduras, it and the model can be applied to almost any mental health program setting.

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Project Impact Research Proposal Summary

An Evaluation of Integrated and Disease Specific Programs for Mentally Ill Chemical Abusers

Objectives:

1. To identify the most effective mental health and substance treatment strategies in Honduras that may be generalizable to developed nations and other developing countries.

2.. To introduce a 'state of the art' impact evaluation model in a developing Latin American country. This should not only provide health and mental health program data, but provide a comprehensive strategy for sustained program/project evaluation and a mechanism for continuous quality improvement within individual health programs in Honduras.

3. To provide the ministry of health with a strategy to monitor treatment efficacy across health and mental health sectors and sub-sectors.

Introduction: Patients diagnosed with severe mental illness who also suffer from other psychiatric and medical disorders present a variety of individual, social, fiscal and political challenges not only for program funding, but planning and implementing effective rehabilitative treatment programs as well. This is especially true in Honduras and Central America where programs operate at minimal funding levels. Severe mental illness coupled with severe personality, behavioral, addictive, cognitive or physical disease, stretches the ability of community based treatment programs to effectively treat these patients. This has led to the development of a wide variety of treatment models designed to serve the multiple needs of these patients (Bachrach, 1984; Drake, 1989, 1991; Minkoff 1987). An evaluation of the clinical effectiveness of these models would not only lead to more cost effective use of limited treatment resources, but more importantly, improve clinical treatment options for the dually diagnosed throughout Central America.

Focusing a program model evaluation on current treatment programs for the most commonly reported dually diagnosed population, mentally ill chemical abusers (MICA), would demonstrate the differential rates for effectiveness for the most commonly used program models. These results would be invaluable
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to Honduran and international policy planners, administrators, legislators and program developers who must design and implement the most effective treatment programs possible with limited resources.

Treatment programs for the dually diagnosed primarily fall into two main categories: disease specific and integrated program models (Minkoff,1991). Disease specific program models tend to focus treatment on what they consider to be the primary area of distress and minimize the importance or urgency of other areas of dysfunction. Many substance abuse treatment programs and traditional hospital based mental health programs typically model their treatment programs in this manner. Integrated program models, found in both hospital and community based settings, are designed to provide individualized treatment planning and services which focus attention on all areas of patient dysfunction are designed to aggressively treat all patient symptoms and associated problems within a single program.

The development of these models has not been based so much on the clinical efficacy, but more on availability of funding and political interest in treating specific patient populations (Humphreys & Rappaport, 1993). This fragmentation of program models has been perpetuated through the development of artificial and arbitrary administrative divisions at the federal, state and local levels without regard to clinical measures of success for the various program models. This is not only the case in industrialized countries but in developing nations as well. Consequently, it is possible that many public sector and grant funded programs continue to be financed through a variety of funding streams with little or no demonstrable clinical success. This siphons critical funds from those programs that use more clinically viable models.

An evaluation of relative treatment outcomes for these two main program models would demonstrate the effectiveness of each model to treat chemical abusers. These results would also enable program planners to create or modify existing programs to more effectively treat their target dual diagnosis populations. Using responsive evaluation methodologies, in which specific clinical program indicators are studied along with indicators chosen by the program's clinical team, the programs under investigation in this pilot study will not only derive efficacy data but have a clear mechanism to continuously improve the quality of care far into the future. Thus, not only will there be data as to program model's effectiveness, but a quality improvement mechanism to improve health and mental health care into the future.

A large proportion of chemical abusers (50-70%) also suffer from concomitant psychological disturbances. In this respect they can be considered dually diagnosed. Dually diagnosed patients in general and specifically MICA patients have complex treatment needs and interactive symptomatology that requires a more integrated approach than is generally employed (Breakey, 1987). It therefore seems likely and is hypothesized that integrated treatment models would be clinically more effective in treating the dually diagnosed MICA patient than population specific models. Evaluating the positive treatment outcomes produced by each program model, treating a similar patient population, should demonstrate the relative clinical effectiveness and cost effective utility of each program model to treat the dually diagnosed. In addition, the use of the local participants (or stakeholders) in the study to first assist in the design of the local indicators, then participate in the measurement of all the indicators, and finally meet periodically to derive action plans that address programmatic deficits will continue quality improvement of both programs under investigation and serve as models of quality improvement to other, similar programs in Honduras.

Methodology:

This investigation will evaluate patient outcomes for two treatment programs at in Honduras that treat mentally ill chemical abusers. The purpose of this is to determine the relative value of each program to treat MICA patients. Clinical outcomes in a traditional drug and alcohol treatment program, a disease specific substance abuse treatment program, will be compared with outcome data from a more comprehensive, community based rehabilitation program that uses an integrated program model. Since both programs have goals of rehabilitating MICA patients over a six month period and promoting long term, drug free community tenure, have similar staffing patterns and are located in the same geographic area, a comparison of program outcomes, based on standard indicators, can be performed to determine the relative value of integrated and disease specific treatment models to treat these patients.

All mentally ill chemical abusing patients who enter the programs during the 6 month period of the study will be included in the investigation. Thus, the investigator(s) must be on site to rate patients during the six month period of the data collection, and remain available for an additional three months to analyze data and continue to refine the data set on the local indicators. For this proposed investigation, the treatment program admission criteria of a major Axis I diagnosis in addition to substance abuse will be the same for both programs. Thus, the patient 'pool' for these two programs are assumed to be identical for the purposes of this study (See Subject Selection). This, however, will be confirmed through the analysis of variance between the groups on the dimensions of age, diagnosis, GAF level at the onset of treatment, and duration and type of substance abuse.

Indicator Selection: In addition to using a set of standard indicators that can be applied to almost any health care program, both programs will also be asked to determine three to five local indicators of successful treatment that are particular to their programs. This information will be of greatest value to the quality improvement component of this study. As information becomes available on both sets of indicators (standard and local) the major stakeholders of each program can agree on the remedial actions necessary to improve the quality of care and improve future performance. If this process continues beyond the six month scope of this pilot study, the net result will be a trend toward improving care on a local programmatic level. Such quality improvement mechanisms are currently not in use in programs that serve the street people and poor of Honduras.

Subject Selection: The patients for both programs under study will be selected on the basis of their meeting the diagnostic admission criteria for the programs. Patients who are ambulatory and not in need of acute care, who are diagnosed with a major Axis I disorder and/or an Axis II diagnosis, and have additional substance abuse diagnosis are admitted to both programs directly from street and other referral sources and will be included in the study upon admission to the programs.

Patient Characteristics: Programs goals of patient rehabilitation and functional community assimilation of mentally ill chemical abusers within a six month time frame are generally the same for each program model. In addition, both program models require patients to meet the target diagnostic and functional criteria for treatment in the programs and from the programs' point of view are expected to functionally improve to the point of community readiness. Since this study compares patient outcomes against the program goals, we can consider the patient populations identical only in this respect. Both groups are comprised of male and female MICA patients with similar backgrounds from the same geographic location.

Standard Indicators and Data Analysis

The two programs will be evaluated by the following standard criteria:

Indicator 1: Successful Treatment Outcomes This will be determined by results of the Level of Functional Assessment scale (Modified)(LOFA); a 53 item scale that quantifies functioning across independent areas of social, cognitive and physical skills (Uehara, Smulker & Newman, 1994. Within two weeks of admission, each patient will be rated on the LOFA . Level and type of addiction will be noted along with other diagnostic and demographic data on the Patient Information Sheet. Patients will be rated again at three months and again at their six month point in the program to note changes in their functional level due to their treatment. All data will be recorded on the Patient Information Summary Sheet.. Patients who reach a GAF level of at least 70, as determined by their LOFA equivalent score, will be counted as meeting their program's objectives for successful treatment outcomes.

Indicator 2: AMA Discharge Within the context of this evaluation, the percentage of patients who do not complete treatment and who leave the programs against medical advise will be compared across programs as a measure of the treatment program's inability to meet the needs of the target population. Since both program models have clinical failures of this type, the percentage of patients who leave each program against medical advise or for cause will be included as AMA Discharge measures of negative clinical outcomes..

Indicator 3: Correlation of Service Hours delivered. A correlation between actual number of service hours delivered and the percentage of successful treatment outcomes per program will be performed to evaluate whether variable amounts of treatment affect overall program outcomes and success. This will demonstrate any relationship between amount of services delivered and successful treatment outcomes.

Indicator 4: Subpopulation Outcomes Differential success rates between diagnostic subpopulations (i.e. schizophrenic, substance abusers versus mood disordered, substance abusers), will also compared to determine whether the models are best suited to one sub-population or another. This measure will be applied to the criteria indicators listed above.

Indicator 5: Relative Rates of Recidivism Percentage rates of patient recidivism for program graduates will also be determined as a measure of the program's relative inability to effectively rehabilitate their target MICA population. Recidivism within the context of this study is defined as any patient who returns to the streets or resumes substance abuse activities.

Indicator 6 - Patient Satisfaction Patients in both groups will complete a Spanish version of the NYSOMH standard patient satisfaction survey at the six month point in their program or upon successful completion and discharge from the program. This will provide a measure of the patients' qualitative level of satisfaction within each program model.

Indicator 7: Cost Efficiency Rate Relative cost per service unit will be determined for patients who successfully meet the goals of the program (See Indicator 1). This measure is included to illustrate differential program costs for those patients who met program goals and is considered a gross measure of program efficiency within the context of this study.

Local Indicators: The two programs will also be asked to form a committee which includes all the stakeholders that may have interest in each program. This may include the governmental monitoring agencies, funding sources, program directors, clinical staff and administrators. The stakeholder committee will be asked to select at least three outcome indicators that reflect effectiveness of treatment. Once determined, these indicators will be monitored, measured for six months, analyzed by the committees and reported in addition to the standard indicators. Once reported on, these two committees will develop action plans to address deficit areas determined in either the standard or local

indicators for their particular programs. These committees will meet after the next interval (three months) and develop action plans to either address problematic areas determined through local indicator data measures and/or develop new action plans for the next three month interval.

Expected Results, Potential Benefits and Reporting Findings:

1. Based on similar studies of this kind (Anderson, 1996), we can expect to see higher levels of clinical efficacy in the integrated program design than in the disease specific program model. This should not only be reflected in the cost efficiency results but in the clinical indicators as well.

2. Deficit program areas should emerge that are specific to these particular programs. Such statistics and qualitative data will point the way toward improving the quality of future quality of care in the respective program models.

3. Since the results of this investigation will be shared with the respective programs, the program models can be modified to increase positive clinical and fiscal gains in each program.

4. Study results will not only be made available to the grant funding sponsors, but will also be reported to the ministry of health to assist in their future mental health planning efforts. The responsive evaluation methodology research model, used in this investigation, will be outlined in detail and reported to the ministry for use in follow-up impact investigations. This will ensure sustainability of the impact evaluation effort and mechanism for continuous quality of care improvements in both health and mental health sectors.

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(SPANISH VERSION)

Propuesta de Investigación sobre impacto de programas

Evaluación comparativa de modelos de atención integrales y de tratamiento específico para farmacodependientes con problemas mentales

Objetivos:

1. Identificar los tratamientos más efectivos para alcohólicos y farmacodependientes con problemas mentales que puedan ser replicados en otros paises, tanto en desarrollo como industrializados.

2. Introducir un modelo de evaluación de impacto que permita no solamente obtener datos sobre salud y salud mental, pero también definir una estrategia para la evaluación contínua de programas y proyectos y que ofrezca un mecanismo para el mejoramiento contínuo de la calidad de estos programas y proyectos.

3. Ofrecer al Ministerio de Salud estrategias para monitorear la eficacia de los modelos de tratamiento ofrecidos en salud y salud mental.

Introducción : Pacientes que han sido diagnosticados con enfermedades mentales serias, quienes también sufren de otros problemas médicos presentan retos individuales, sociales, económicos y políticos no solamente para el financiamiento de programas dirigidos a ellos, pero para la implementación de programas efectivos de rehabilitación. Esto es particularmente cierto en Honduras y otros países Centroamericanos donde estos programas operan con un mínimo de financiamiento.

Enfermedades mentales serias acompañadas de problemas de personalidad, comportamiento, adicción y problemas físicos, sobrepasan la capacidad de atención de programas que funcionan a nivel comunitario. Para resolver esta problemática se han desarrollado varios tipos de programas diseñados

para dar respuesta a las necesidades múltiples de estos pacientes. La evaluación de la efectividad de los diferentes tipos de programas resultará en una mejor utilización de los limitados recursos disponibles, y lo que es más importante, mejorará el tratamiento para pacientes diagnosticados con enfermedades mentales y farmacodependencia y-o alcoholismo.

Programas de tratamiento para pacientes con enfermedades mentales y farmacodependencia y/o alcoholismo tienen dos modalidades principales: las que tratan problemas específicos y las que ofrecen tratamiento integral (Minkoff, 1991). Los programas que ofrecen tratamiento específico tienden a enfocar el tratamiento al área de mayor disfuncionalidad y a minimizar la importancia o urgencia de tratar los síntomas considerados secundarios. Muchos programas de tratamiento para alcohólicos y farmacodependientes, así como programas dentro de los hospitales ofrecen esta modalidad de tratamiento. Los programas de tratamiento integral que se encuentran en algunos hospitales y clínicas comunitarias han sido diseñados para ofrecer planes de tratamiento individualizados y servicios de atención que tratan todos los síntomas del paciente agresivamente dentro del mismo programa.

Una evaluación de los resultados de estas dos modalidades diferentes de tratamiento demostrará la efectivdad de cada modelo para pacientes con problemas de farmacodependencia y/o alcoholismo. Los resultados de la evaluación permitira a los planificadores de programas que modifiquen programas existentes o que creen nuevos programas para tomar en cuenta los resultados de la evaluación del tratamiento de este tipo de pacientes. Los programas objeto de esta investigación utilizarán metodologías modernas de evaluación mediante las cuales se estudiaran indicadores de éxito del programa, así como indicadores de eficacia seleccionados por el personal profesional del programa. Esto permitirá obtener datos sobre efectividad del programa y también mecanismos para mejorar continuamente la calidad de atención de los programas.

Metodología:

Esta investigación evaluará los resultados del tratamiento recibido por los pacientes en dos programas que dan atención a personas con problemas mentales y problemas de farmacodependencia y/o alcoholismo. El objetivo es determinar la efectividad relativa de cada programa para ofrecer tratamiento a este tipo de paciente. Los resultados clínicos de un programa tradicional que ofrece servicios de atención a farmacodependientes y/o alcohólicos con problemas mentales serán comparados con los resultados de un programa que ofrece atención integral al mismo tipo de paciente. Dado que ambos programas tienen el objetivo de rehabilitar a los pacientes en un período de seis meses y ofrecer servicios que promuevan la conducta prosocial en los pacientes, que ambos programas tienen personal similar y están ubicados en la misma área geográfica, se puede realizar una comparación de los resultados del programa, basada en indicadores estándar para determinar la efectividad relativa de los diferentes modelos para tratar este tipo de pacientes.

Todos los pacientes que ingresen al programa durante un período de tres meses, con problemas de farmacodependencia y/o alcoholismo serán incluidos en la investigación. Para esta investigación los criterios de admisión con una diagnosis de Axis I, además de farmacodependencia y/o alcoholismo deben ser los mismos. Por lo tanto, el grupo de pacientes de estos dos programas será considerado idéntico para propósitos de este estudio (ver el párrafo sobre selección de pacientes). De cualquier manera, esto será confirmado mediante un análisis estadístico.

Selección de indicadores: Además de utilizar un grupo de indicadores estándar que pueden ser utilizados en cualquier tipo de programa de atención médica, ambos programas deberán seleccionar entre tres a cinco indicadores particulares a cada programa que permitan determinar el éxito del

tratamiento. Esta información será de mucha utilidad para el componente de mejoramiento de la calidad del tratamiento de estos programas. A medida que se obtenga información sobre todos os indicadores (estándar y particulares), los interesados de cada programa pueden ponerse de acuerdo en acciones necesarias para mejorar la calidad del tratamiento y mejorar la operación futura del programa. Si este proceso continúa después de los tres meses del estudio piloto, el resultado será una mejora a nivel de programación local. Al presente, estos mecanismos de mejoramiento de la calidad del tratamiento no son frecuentemente utilizados en programas que ofrecen servicios a personas con problemas de farmacodependencia y/o alcoholismo.

Selección de pacientes: Los pacientes para ambos programas incluidos en este estudio serán seleccionados con base en los criterios de admisión a los programas. Estos serán solamente pacientes que son AMBULATORY y han sido diagnosticados con problemas de Axis I o Axis II y adicionalmente tienen problemas de farmacodependencia y/o alcoholismo.

Características de los pacientes: Los objetivos de ambos programas incluyen la rehabilitación y la promoción de conducta prosocial en los pacientes en un período de tres meses. Además, ambos programas requieren que los pacientes cumplan con los criterios de admisión para tratamiento dentro de los programas y desde el punto de vista de los programas se espera que éstos mejoren al punto de estar listos para su reinserción en la comunidad. Dado que este estudio compara los resultados relacionados a la mejora de los pacientes con los objetivos del programa, los grupos de pacientes se considerarán idénticos únicamente en este aspecto. Ambos grupos estarán compuestos por hombres y mujeres de BACKGROUND similar y de ubicación geográfica similar.

Indicadores estándar y análisis de datos:

Los dos programas serán evaluados mediante los siguientes criterios:

Indicador 1: Tratamiento exitoso. Este será determinado a través de los resultados de la escala de nivel de conducta funcional (LOFA). Esta es una escala de 53 itemes que cuantifica la conducta funcional en diferentes áreas, tales como el abilidades sociales, cognitivas y físicas. Dentro de las primeras dos semanas de ser aceptado en el programa, a cada paciente se le administrará la prueba LOFA. Se anotará el nivel y tipo de adicción junto con otra información relacionada al diagnóstico y datos demográficos en el formulario de Información sobre el paciente. A los pacientes, se les administrará nuevamente la prueba el dia en que son dados de alta del programa.

Indicador 2: Dada de alta. En el contexto de esta evaluación, el porcentaje de pacientes que no completen el tratamiento y que dejen el programa en contra de la recomendación médica, serán comparados en los dos programas mostrando la inabilidad de los dos programas de dar respuesta a las necesidades de la población meta. Dado que los programas sufren de fracasos de este tipo, el porcentaje de pacientes que deja el programa sin aprobación médica o por alguna otra cause será incluido como un indicador de resultados negativos.

Indicador 3: Correlación de horas de atención. Se hará un análisis de corelación entre el número actual de horas de atención ofrecidas y el porcentaje de tratamientos exitosos por programa para evaluar si la variación en horas de atención afecta el resultado y éxito del tratamiento ofrecido por cada programa. Este análisis mostrará la relación entre horas de atención y éxito del tratamiento.

Indicador 4: Resultados por grupo de pacientes. Tasas de éxito entre grupos de pacientes (por ejemplo, esquizofrénicos con problemas de farmacodependencia y/o alcoholismo comparados con pacientes con

desorden de conducta a nivel del afecto y con problemas de farmacodependencia y/o alcoholismo) también serán comparadas para determinar si los tratamientos son más exitosos en un grupo de pacientes que en otro. Estas medidas se aplicarán a los indicadores 1 a 3. 4

Indicador 5: Tasas relativas de recaída. Los porcentajes de pacientes que completan el tratamiento y recaen serán utilizados como una medida de la efectividad del programa en la rehabilitación de la población meta. En el contexto de este estudio, se define la recaída como una reversión a la conducta aberrante que conlleva el uso y abuso de fármacos, alcohol y drogas, después de un período de abstinencia y ajuste social satisfactorio.

Indicador 6: Satisfacción del paciente. Los pacientes en ambos programas completarán un cuestionario estándar para dar su opinión sobre el programa y el tratamiento recibido a los tres meses de haber iniciado el programa o al ser dados de alta. Esto aportará información cualitativa sobre la satisfacción del paciente con el programa y tratamiento.

Indicador 7: Costo eficiencia. El costo relativo por unidad de atención será determinado para pacientes que cumplen con los objetivos del programa (ver indicador 1). Se incluye esta medida para mostrar la diferencia en costos unitarios para pacientes que cumplieron con los objetivos del programa y es considerada una medida bruta de la eficiencia del programa en el contexto de este estudio.

Indicadores locales. Se espera que cada programa conforme un comité que incluya a todos los interesados en el programa. Este comité puede incluir instituciones de gobierno, donantes, directores del programa, personal médico y administradores. El comité deberá seleccionar por lo menos tres indicadores de resultados que reflejen la efectividad del tratamiento. Una vez que estos indicadores han sido definidos, se les dará seguimiento mensualmente . Los resultados serán analizados por los miembros del comité quienes serán responsables de elaborar un plan de acción para resolver áreas problemáticas en el siguiente mes.

Resultados esperados, posibles beneficios y resultados del estudio

1. Con base en estudios similares (Anderson, 1996) se espera obtener mejores índices de eficacia del programa que ofrece servicios de atención integral a los pacientes comparado con el programa que ofrece tratamiento a enfermedades específicas. Esto se debería ver reflejado no solamente en los indicadores de costo eficiencia del programa, sino también en los indicadores clínicos.

2. Se espera identificar áreas problemáticas en los programas. Los datos estadísticos así como la información cualitativa recopilada permitirá mejorar cualitativamente la atención y tratamiento ofrecidos a los pacientes.

3. Dado que los resultados de este estudio serán puestos a disposición del programa respectivo, estos podrán hacer modificaciones en su funcionamiento para mejorar los aspectos clínicos y financieros.

4. Los resultados del estudio serán puestos a disposición del Ministerio de Salud para su utilización en el proceso de planificación y definición de estrategias de atención a la salud mental. La metodología de evaluación participativa utilizada en el estudio será descrita en detalle y entregada al Ministerio de Salud para que la institución la utilice en futuras evaluaciones de impacto de programas bajo su responsabilidad. Esto puede asegurar la sostenibilidad de este esfuerzo de evaluación de impacto y también puede servir como un mecanismo para el mejoramiento de la calidad de los servicios de atención de salud y salud mental.

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DEVELOPMENTS IN PSYCHIATRIC REHABILITATION: A THERAPEUTIC TRIP

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Abstract
The paper describes the process of preparation of inpatients to be discharged from a psychiatric facility to live in sheltered quarters in the community. The results of a two-year follow-up seem to indicate that this preparation greatly enhanced the ability of the patients to stay in the community, specially those patients who were referred to half-way houses. The paper also describes the efforts of the patients to improve their life style, and engage in activities which are normal for the rest of the population, like planning and taking a vacation trip abroad. The groupal procedure used to improve the patients' social skills is also described.

Introduction

In the last decade there has been a general impulse all over the world to desinstitutionalize mental patients (1). The movement, which started in the USA and in Italy, mostly due to economic reasons, has spread to most advanced countries (2).
Nevertheless, the practical difficulties, the lack of knowledge and experience, and the lack of uniformity in the goals to be achieved in different countries, have created much controversy, and many attempts at desinstitutionalization failed, due to lack of adequate preparation, both in the community facilities aimed at receiving the patients once desinstitutionalized, and in the patients themselves, before being moved from hospital beds to more open facilities.

The Mental Health Center Beer Sheva (MHC) has developed a system of preparation which, according to results, seems appropriate for Israel. It is possible that the system cannot be exactly adapted to other countries, but some of the techniques which were developed may certainly be replicated elsewhere.

1) - Antecedents

The Rehabilitation department of the MHC organized, starting in 1995, a rehabilitation school which provided a series of courses in order to prepare chronic schizophrenics to leave the hospital where they had been admitted for the last average 14 years, and pass to live in new facilities, called Hostels, or Half-Way Houses, being developed in the community. The school provided courses on very basic elements of independent living:

- Personal Hygiene;
- Mental illness and the effects of medication (why is it advisable to continue complying with medication);
- Basic cooking;
- Creating and managing a shoe-string budget;
- Applying to organisms in the community (such as the Municipality, gas

and electric companies, etc.)
- Free community resources available and not-generally-known;
- What to do with your spare time without getting bored.

Courses were provided by members of the staff of the Rehabilitation Department, and did not require additional funding.

Those courses covered the four basic elements enunciated by Hersen & Bellack (4,see below). Some other elements of resocialization (5) were covered by other activities carried out in the ward: Group activities on news read in the newspapers or heard in the radio or television, with the dual purpose of 1) Keeping the patients in contact with the surrounding reality of the external world, and 2) To promote dialogue and communication among the patients (6); active intervention of the patients in preparing some of the collective activities, like cleaning the ward (there are no cleaning personnel in the ward); preparing religious or national festivities (which in Israel are the same thing); collective visits to a social club for mentally ill people which functions outside the hospital walls; encouragement of some "normal" social activities which are generally not considered in hospitals, like ordering a pizza on the phone and sharing it with friends (7).

The Outpatient Department, which had to receive those patients for follow up treatment, developed a day-care unit. The liaison unit at the Outpatient Department created a special day-care unit for the management of some 40 to 50 patients, who were engaged in the re-entry process, and who were discharged from the Rehabilitation Department to the Hostels (three of them have been created so far, with different degrees of autonomy for the inhabitants, and a fourth is in the process of being opened).

The day care unit, comprising a doctor, a nurse and a social worker, provides the patients with occupation in the Occupational Therapy department of the MHC or as assistants in the Maintenance and Cleaning department, for a very low salary. Patients are also provided with lunch in the premises of the MHC. This salary, although very low, together with the hot meal provided, assist the patients to square their budgets.

The day-care unit provides placements in the different working areas, including some in the community or in sheltered workshops outside the MHC. It also provides the patients with medical follow-up, including application of injectable medication, social worker services and house visiting when necessary. General medical needs are covered by one of the medical insurance companies existing in the community, which are paid for by a special tax applied to every citizen in Israel.

To assist patients to comply with medication, a nurse provides them with special weekly pill containers (8), and patients take their medication by themselves, although the containers are periodically checked.

In the period 1997-1998, the Rehabilitation Department passed to the care of the day-care unit of the Outpatient Department 48 patients, of which 40 were referred to hostels, and the other 8 preferred to live either by themselves or with their families. 85% of the patients had diagnosis of schizophrenia or schizoaffective disorder, the others had diagnosis of affective disorder. They had been admitted in different hospitals for an average of 14 years.

Of the 40 patients placed in Hostels, 32 (80%) were still doing well at two year follow-up. The eight patients who preferred to dwell with their families had a much higher relapse rate, in excess of 50% (9). 8 patients living in the hostels had to be readmitted, of whom, 7 were readmitted for only a few days, and only one patient had to be readmitted for a long time. The 23 patients admitted in one of the hostels, including 3 patients who had undergone a brief readmission, decided that they had the same

rights as everybody else, and that if it is normal in Israel to take a vacation trip abroad, they would also take one of those trips, just like the rest of the population.

In order to assist them fulfill their wish, the day-care unit of the Outpatient Department had to undertake special tasks to insure adequate preparation of the patients.

2) Material and Methods

The principal task for the staff was to ensure that compliance with medication should be total, if relapses or any other mishaps were to be avoided during the trip.

In order to enhance compliance, the nurse of the day-care unit organized a course(10) (11) (12), which in part reinforced the material the patients had learned in the previous course at the Rehabilitation Department, and in part introduced new elements, which were thought to be important for the new goal (13).

The principal points thought to be in need of stressing during the course were (14):

1) - That patients understood that their disease was chronic, and that they would need medication for most or all of their lives;
2) - That patients understood that there was a connection between taking medication and avoiding symptomatology and improving functioning;
3) - That patients understood that they should not stop medication even if they felt better or well;
4) - That patients understood and knew the side effects of medication, and the ways to cope with them.
5) - That patients understood that it was within their reach to comply with medication;
6) - That most patients understood that they could be helped by relatives or staff when they had some problem with compliance;
7) - That patients developed sufficient confidence in their doctor or nurse as to be able to ask for help when needed;
8) - That patients would comply with their medication during the three months that the preparation program went on.

These points were chosen based on the theoretical framework on which the program was based. The theoretical framework was provided by the psychodidactic approach of Hersen and Bellack (4), and the work of Liberman (14, 15) on social skills training. Hersen and Bellack remark several issues in the psycho-social approach to the treatment of mental patients:

1) - This approach cares of the social aspects which are an important component in the life of mental patients.
2) - The approach considers that mental patients profit from the learning process.
3) - The approach tries to provide the same education to dysfunctional patients by the use of limited goals and systems.
4) - The approach supposes a positive result from treatment irrespective of diagnosis and chronicity of the illness.

The goal of the approach is to change the social behavior of the patients without changing their other aspects. The higher the social skills of the patient, he becomes less anxious and depressed, and feels less incapacitated and more self-confident.

Wilkinson & Canter (16) propose some definitions of social skills: Some people define them as the possibility of using behaviors which receive a positive reinforcement, and to avoid behaviors which receive negative reinforcement or punishment. Efficiency of the individual from the social standpoint depends on what he proposes to achieve in determinate circumstances. A behavior which may be appropriate in some circumstances may be inappropriate in different circumstances. The individual brings to every situation his own set of values, ideas and beliefs, and his personal style.

Fundamentally, social skills training, according to Liberman (15), was divided in the following stages:

1) - Problem definition: training the patient to identify his deficitarian behavior in order to recognize areas where behavior should and could be improved;
2) - Inventory of assets: This most important item aims at allowing the patient, who usually suffers from a very poor self image, that he has a series of assets he may use and develop in order to improve his problem solving capacity;
3) - Establish a reinforcing therapeutic alliance: This permits to improve the patient's self-image and also permits the

positive therapist to bring forth some negative elements without hurting the patient's fragile self-image. This requires establishing rapport, showing concern, expressing empathy, and demonstrating competence;
4) - Goal setting: this requires the patient to focus his attention on specific areas and not to disperse in the pursuit of sometimes unachievable expectations. Setting specific and concrete interpersonal goals is perhaps the most challenging step in the behavioral procedures comprising social skills training;
5) - Behavioral rehearsal: Patients usually do not achieve a high degree of proficiency in their skills from the beginning, the task requires lengthy rehearsal, usually by means of role playing;
6) - Shaping: Shaping is the building of complex sequences and chains of social behavior through successively reinforcing small steps along the way;
7) - Prompting (or cueing): is a technique which enables us to reinforce positive elements even before such elements actually occurred, or when those elements appear only seldom in everyday life in the therapeutic milieu. The therapist must be very active;
8) - Modeling: demonstrating to the patient a determinate behavior or skill as an example, in such a form that the patient may understand it and rehearse it;
9) - Homework and practice in vivo: homework assignments are regularly given to the patients in order to control their compliance with the treatment and to ensure that they acquire sufficient skills in each of the topics.

Development of the training course:

Patients were divided into two groups, one with fourteen patients, and the other with nine. Each group participated in ten two-hour meetings (with a fifteen minute interval). Patients were taught to speak freely and to explain their feelings about the disease. For example: when asked what was the disease they suffered from, some of the patients explained that schizophrenia was like the flu, other explained that they felt depression, or heard voices, others stated that they had fear, others that they had strange thoughts.

When asked about what it was to have a mental disease, they explained that it was to have something wrong in the brain, some bad materials in the brain. Others said that something bad was running after them to hurt them, or that the person who was sick from mental disorders was a person who did not catch reality as it is. In their opinion, mental patients stop functioning, do not want to get up in the morning, detach themselves from the environment and the surroundings.

In the second and third meetings, they spoke about their medicines. The patients explained that their medicines affected and improved their thoughts, their behavior, but complained seriously about the side effects of medication, in their words, "You better don't try them, they make you extremely tired".

When asked about why they had to take drugs, they answered that "because they were sick"

When asked about what makes them feel well, they answered: "Adequate treatment, motivation for something, will power, treatment of the personal problems of the patient, self-understanding, to go out to have fun, to take the pills on time, to be in touch with people".

In the fourth and fifth meetings they spoke about side effects of medication. They first received careful explanation about their medications and about the side effects, and then each one spoke about what side effects made him/her feel. After each one had spoken, they received instruction about how to identify side effects, and what to do to avoid them or to reduce them.

Sixth, seventh and eight meeting were devoted to role playing of the effects of medication and of its side effects. In these meetings patients also received instruction through role-playing about the different situations a trip may entail, like arriving to the airport, speaking with the immigration officers, show the passports, and the like.

The last two meetings were devoted to rehearsal of all the material seen in the course, strengthening of points identified as weak, and, very important, distributing to each participant their certificates of completion of the course, a very important point according to previous experiences.

Results

The patients effectively took their trip to Turkey. They 23 of them were accompanied by a nurse and two instructors who worked in the hostel with them.

During the trip there were absolutely no incidents, the patients behaved just like anybody else. Some of them, who were flying for the first time in their lives, were slightly apprehensive, but all in all there were no problems. Once in Turkey, they arrived in the hotel, received their rooms, shared the lives of all the other guests at the hotel, took guided and unguided tours around, with no special difficulties or signs that they were a group of mental patients.

The nurse had taken along great amounts of medication, and was prepared to cope with almost any eventuality, but there was not even need to open the medication case, each patient had been provided with their weekly medication containers, and that was all they needed.

Discussion

From the above mentioned we may conclude that the social impairment of mentally ill people may be overcome, at least partially, by intensive training and dedicated cooperation of the staff (17).

The work made with this particular group of patients may be divided into three stages: a first stage, accomplished during their period of hospital admission, which enabled them to abandon the hospital and pass to live in the hostel; a second period in which they acclimatized to life in the hostel, and in which they decided that they could do just like anybody else, and decided to take the trip to Turkey; and a third stage in which they prepared this trip.

The first stage, accomplished in the Rehabilitation Department in the hospital, started the process of rehabilitation which would lead the patients to eventually return to the life in the community. This stage may in itself be divided into two periods: in the first, the patients were trained in basic socialization skills, and understanding of their disease (18). The second of these periods, the passage to the hostel itself, required the corporate efforts of the staff of the Rehabilitation Department and the staff of the Outpatient Department, with a very gradual transition from one to the other, and with a deep understanding, on the part of the second personnel, of the needs of the patients and of the direction of the efforts made by the first team.

The second stage required a great involvement on the part of the relatively small staff provided by the Outpatient Department, because the patients were very active, and engaged in new activities almost every week, and they often had to be redirected on the positive goals previously fixed, without letting them wander at will.

The third stage required the cooperative effort of the Outpatient Department staff and of the staff of the hostel, in order to make sure that training was continuous and with an adequate rhythm. The repetition of the subjects already covered in the Rehabilitation Department in this stage was of course only a practical application of the principle of reinforcement of behavioral therapy.

The good results obtained during the trip itself were surprising even for members of the staff involved, and only showed that with the adequate amount of effort (19), much can be achieved in the process of rehabilitation. The good results also triggered the will to repeat the experience. The same group is already planning another trip, and the patients of another of the hostels are beginning to prepare their own vacation trip.

The trip also became an important topic of conversation for the patients, among themselves, but also with other people, thus contributing to their resocialization.
It is important to stress that the process of training created a very strong bond between the patients and the staff, which, in all probability, aided to the success of the process (20).

The fact that a group of those desinstitutionalized patients were able to organize themselves, both economically and logistically, to take a leisure trip abroad, indicates that the quality of life (3) of those persons may be dramatically improved, and that our suppositions concerning the ability of chronic schizophrenics to improve their situation must be seriously reconsidered.

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Methodological Approaches in Mental Health Services Research and Program Evaluation

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Abstract: *This paper reviews the key concepts in mental health program assessment, efficacy studies and assessment methodologies. It reviews historical developments in program evaluation methodologies, recent studies, the Journal of Consulting and Clinical Psychology's special section on methodological developments, NIMH's National Plan to Improve Research in Mental Health Services, and NIMH guidelines for future mental health service research. A comparison of the major methodological approaches and detailed discussion of fourth generation evaluation research methodology is presented. Evaluation research methodology is found to be the most effective approach in the study of overall program efficacy.*

Methodological Approaches in Mental Health Services Research and Program Evaluation

Introduction: Mental health programs, along with other health and social welfare services, are coming under increased scrutiny and evaluation. With consistently smaller budget allocations for mental health, many federally funded programs are being radically changed, some severely curtailed, and the relationship between government and private sector providers is being realigned (Inouye, 1983; Klerman, 1974). In addition, state and local government agencies that were expected to reimburse mental health programs for federal shortfalls in funding, have not been universally successful in meeting this challenge (NIMH, 1991). Thus, new research into the efficacy of mental health services has been called for to meet these growing challenges. However, because traditional research methods have not been readily applicable to the study of applied health programs, a search for more appropriate methodologic approach is now underway (Newman, Howard, Windle, & Hohmann, 1994).

These developments are especially significant for mental health services, which have been more regulated and financially supported by government than any of the other service within the health sector in the past two hundred years (Rothman, 1972). Throughout this period there have been numerous cycles of mental health reform and innovation, followed by phases of criticism, dissension and retrenchment (Bockman, 1963; Caplan & Caplan, 1969; Deutsch, 1948, Grob, 1973). While the "reforms in mental health have coincided with periods of progressive social change in the larger American Society, phases of reactions, criticism and retrenchments have occurred with the aftermath of war and economic decline" (Klerman, 1974, p.783).The current economic slump of the nineties following the prosperity and massive federal spending of the eighties, continues the cyclic pattern of change in mental health services.

After a decade and a half of growth in mental health and substance abuse services, a number of criticisms have been leveled at the mental health sector. Chief among these criticisms is that of program effectiveness (NIMH, 1989). To date, there are very few applied or experimental research studies that address program efficacy (PsycScan, 1995). Without knowing what programs and/or treatment models effectively work for a variety of patient populations in a variety of settings, legislators and grant funding sources have no way of planning where and how their limited resources should be spent.

Inadequate research strategies and methodologies have been cited as the primary reason why such program efficacy research has not been studied (Newman et al., 1994). Mental health services research cuts across the disciplines of economics, sociology, epidemiology, political science and psychology. One of the prime purposes of mental health service research is to provide empirical evidence and

support to guide policy decisions at all levels of government and non governmental organizations (NGOs). However, until recently, very few efficacy studies of mental health program or their associated models have been reported in the professional psychological literature (PsycScan, 1994).

Newman (1994) writes that until recently, clinical psychologists have tended to ignore and not pursue mental health services research. This has been a direct result of the limitations in methodological training that psychologists receive and a bias against such research in the publication standards of the professional and academic literature. According to Newman, studies that assess success rates and program effectiveness in mental health service programs have not been generally deemed worthy of publication. In addition, most clinical psychologists and clinical researchers are trained in experimental and quasi experimental techniques that make it very difficult to adequately evaluate the global, multifaceted, molar effects found in applied treatment programs (Guba & Lincoln, 1989).

The methodological deficits and bias toward the scientific method in professional publications have made it difficult for psychologists to develop and utilize research methodologies to fully assess the efficacy of mental health service programs and program models in both the public sector and NGOs (Clarke, 1995; Newman & Howard, 1991).

Researchers who investigate programs and clinical factors related to improving the quality and impact of mental health services are often handicapped by the perceived legitimacy of their applied research and the methodologic approaches they utilize (Newman et al., 1994). Historically, traditional research methods and journal/grant review criteria have not taken into account the global questions and systemic points of view necessary to fully understand the therapeutic delivery systems under evaluation. Thus, there has not been a coordinated, sustained effort to determine program efficacy for the majority of human service project initiatives (NIMH, 1989).

Many program and project research evaluations attempt to present the factors and/or 'facts' uncovered in their program evaluations, utilizing traditional experimental, quasi experimental, causal comparative, correlational and other approaches. Such evaluations attempt to identify the most salient factors for good program performance on a molecular level. In the process, many of the characteristics and practices that define a successful program may be ignored or dismissed as inappropriate or unimportant to the objectives of the research. For example, in an investigation of a psychotherapy program, investigators may choose to only examine the mean or median number of therapeutic hours received in an voluntary outpatient program. Though this may or may not relate to overall patient satisfaction, motivation and progress, such process measures do not determine the overall performance or level of program effectiveness. Thus, almost no programmatic conclusions can be made on the basis of this information.

Despite significant clinical and basic research progress made in the diagnosis and treatment of mental disorders over the past two decades, many questions about how to provide high quality, effective treatment services still have not been answered. For people with severe, persistent, disabling mental disorders, this situation means that individual diagnoses may be inaccurate, treatment plans may be inadequate or ineffective, and essential services may not be available (Lalley et al., 1992; NIMH, 1991). As a consequence, such individuals are often forced to not only endure a lonely struggle against the despair anddistress caused by their mental illness, but must also negotiate a confusing, fragmented maze of human services, created by a wide range of often well meaning public and private sector service providers.

Instead of concentrating on determining the individual facts and salient factors associated with successful treatment outcomes, human service researchers should be more concerned with one global question that allows for a more holistic examination of program worth: "What works, for whom, under what circumstances?" (NIMH, 1991, p.vii). The net effect of any treatment program or human service project is determined by the integrated use of multiple, interactive program components, delivered at a site conducive to recovery and/or rehabilitation to a population that will be receptive to such treatment (Breakey, 1987; Minkoff, 1991). Since successful treatment outcomes depend on the global interaction of all these factors, research methodologies used to investigate such programs must also mirror this global, molar intervention to accurately determine whether successful outcomes have indeed occurred.

This paper provides a systematic review of human service research methodologies and prevalent types of investigations. Its focus is on the central methodological issues in determining mental health program and program model efficacy. Though the research and methodologies noted throughout this paper do not cover the entire scope of mental health service research, they are presented as a cross section of the most prevalent types of program evaluation and exemplify the scope of methodological and conceptual issues in this area.

Critical Methodological Factors in Assessing Program Efficacy

Over the years there have been a number of review articles that have called attention to the need for an increased research effort into efficacy studies of mental health services (Inouye, 1983; Klerman, 1974; Newman et al., 1994). However, until recently, these articles only addressed the need to increase the research effort without recognizing the methodological developments that would be necessary to adequately assess program strengths.

Klerman (1974) gives the first comprehensive account of the state of mental health service research. In his descriptive article he not only identifies the major stakeholders that should be included in evaluation research, but outlines the major concerns voiced by each constituency. He notes that while the public at large, the courts, mental health professionals, and government agencies all have an active stake in the results of such research, each has a different focus and agenda for the outcomes of evaluation research studies, and requires varied types of data with which to formulate their concerns as to how, where and in what manner, mental health programs should operate. The identification and recognition of the needs of all major stakeholders in any mental health service program is a critical step that is often overlooked in most evaluation studies (Guba and Lincoln, 1989).

The public at large has an active stake in new mental health services evaluations (Klerman, 1974). In some cases an adversarial climate has developed among mental health program critics in the general public and mental health professionals and administrators. Because many critics feel that mental health has expanded too much into areas that had previously been regarded as social deviance or legal misdemeanor, such as substance abuse and treatment for the homeless, the public at large mirrors professional uncertainty about treatment adequacy, clinical training for paraprofessionals, and about what is or is not effective treatment strategies for various patient populations. This reflects a lessening of public trust and confidence in mental health services that parallels the erosion of funding and governmental support (Klerman, 1972). In addition, community groups are now seeking a more active voice in the operation of mental health service programs within their neighborhoods and catchment areas. In general, these groups want to ensure that treatment programs maintain standards which will protect and enhance their community, and not place the public or patients at risk (NIMH, 1991).

Federal and State courts have been become increasingly involved in mental health service programs over the past 20 years. Prison based substance abuse and mental health programs have markedly

increased over the past decade and a half (NIMH, 1991). However, most of these programs have evolved due to court mandated levels of care and have mainly documented their measures of criminal recidivism as the sole measure of program efficacy (Robitscher, 1972). Since the courts have mandated this treatment and view success in treatment as key factor in rehabilitating both the involuntary hospital patient and the mentally ill legal offender, they have become more interested in mental health services evaluation as well. Thus, the court systems are active stakeholders in any efficacy evaluation of mental health services and seek information as to the type and level of services that will be delivered to disordered, disabled and incarcerated individuals.

The court system has also been a major contributor to the development of program models and standards of practice for both hospital and community based mental health service programs. Due to general concern for patients' civil rights and for the possible infringement of their personal liberties in cases of involuntary hospitalizations, a number of landmark court decisions mandated not only effective treatment but treatment at the least restrictive level (Klerman, 1972; Robitisher 1972). Moreover, there has been increased concern about the depersonalization and institutional dependence fostered by large public hospitals. Within the mental health professions, there is a general awareness that large hospital based programs become professionally and therapeutically bankrupt and ineffective. This sentiment fostered the creation of community mental health centers, which are felt to provide alternatives to the low levels of institutional care previously provided to the poor and disabled in large public hospitals (Weston, 1972).

Such mental health program interest by the court and legal systems has been the most significant reason for reforms in mental health services including the community mental health center programs (Klerman, 1972). By concentrating on the difficulties and dissatisfaction encountered with the large public mental hospitals, particularly the county, state, and Veterans Administration hospitals, the courts have mandated improvements in treatment and service programming that have led to significant reforms in mental health services. These reforms have resulted in a decrease in program size, emphasis on community based treatment, and increased intensity of treatment in both community and hospital based programs. They have also been shown to increase the probability of more rapid discharges and reduced recidivism (Farkas & Anthony, 1991; Lamb, 1972; Ullman, 1964).

"At all levels of government federal, state and local evaluation efforts are frequently initiated by fiscal and budgetary agencies "(Klerman, 1972, p.784). Increasingly, political, fiscal and administrative decisions regarding mental health programs and their associated treatment models are being made on the basis of fiscal goals to deliver the most effective programs possible for the least amount of funding. In addition, state and local agencies charged with monitoring and promoting mental health service research and delivery have been increasing their efforts to determine what constitutes effective mental health programming for a variety of patient populations. Initiatives to reform mental health care have precipitated legislation to develop and expand state and local commissions to further investigate program utility and effectiveness (Scott & Ginsburg, 1994; Frank et al., 1994).

At the federal level, service research has become a high priority for agencies responsible for mental health funding and monitoring. In fact, research funding at this level has been increased from $90 million in 1992 to a projected $369 million budgeted for Fiscal Year 1997 (NIMH, 1991). With the reorganization of ADAMHA (Alcohol Drug Abuse and Mental Health Agency) in 1992, the National Institutes of Mental Health (NIMH), National Institute on Drug Abuse (NIDA), and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) must devote no less than 15% of their total budget for health care services research, all coordinated by NIMH [ADAMHA Reorganization Act,

464R (f)(2)]. This increase in funding clearly demonstrates an increased level of commitment by the federal government to improving service research and overall program effectiveness for the mental health program consumer.

Mental health consumers and their families have a very active stake in the outcome of program research, but until recently, have had little influence in the methods or outcomes of research process. Families of the severely disturbed and the mentally ill themselves have to shoulder tremendous financial and emotional burdens. Each year, 65% of discharged psychiatric patients (Approximately 1.5 million), return home and live with their families (NIMH, 1991).

Due to the high cost of hospitalization, many of these patients return home earlier than they would have in the past, still disabled by psychiatric symptoms (NIMH 1992). State and local governments are also beginning to recognize the stake that patients and their families have in the mental health treatment by enacting legislation to give the consumer and his/her family a voice in the therapeutic process (NYSOHM, 1990).

The National Institute of Mental Health (1991) credits the National Alliance for the Mentally Ill (NAMI) with a successful lobbying effort for the inclusion of the mentally ill and their families into the evaluative research process. NAMI together with Family Alliance for the Mentally Ill (FAMI) were developed as grass roots organizations to serve as advocacy groups on behalf of mentally ill persons and their families. These organizations bring the problems and issues of the mentally ill and their families to the attention of local, state and federal governments. In evaluative research studies, NAMI has championed the cause of "research designed to identify ways to help patients readjust to the community within the least restrictive environment possible and to prevent relapse through early intervention" (NIMH, 1991, p.13). In "Clinical Services Research: Enhancing the Real World Applications of Clinical Science" (1991a), NIMH has outlined the critical points that NAMI and FAMI advocate for service evaluation research studies.

Researchers must carefully assess the ramifications of family involvement in the care of a mentally ill member including the characteristics and conditions of caregiving families; the degree and varieties of family stress; the effectiveness of various coping and adaptation patterns; and timing and extent of caregiver burnout; and the impact of various kinds of respite care for family members.

Studies should be performed that are focused on family issues and produce results to assist families with mentally ill members in functioning more effectively and with less turmoil. Such studies would provide effective education in technique for dealing with mentally ill persons without succumbing to the overwhelming anxiety; motivating the patient to become more self sufficient; and understanding and communicating appropriate expectations. An essential need is for research on the long term effectiveness of such family education programs both in helping the patient and in reducing the family's burden.

For generations, families with mentally ill relatives have dealt with the problems of violence toward family members, exacerbated now as a result of a substance abuse by the seriously mentally ill. Investigators must focus on the predictable, frightening and violent behavior that patients may exhibit toward family members, with the goal of developing more efficient criteria for predicting such behavior and more objective ways to manage and prevent it. Such studies must place a high priority on meeting the needs of families for early education, prevention, and intervention. In this connection, attention should be given to identifying techniques of family adaptation and have proved effective.

Dealing with mental illness is expensive. Families become frustrated and angry as their savings dwindle, often with meager results. A guide on how to obtain the most effective services even with limited personal resources would be a welcome aid. Such a guide based on evaluative research, not an opinion could help families make informed decisions about more selective use of mental health services." (NIMH, 1991a, pp.12 13)

Together, these points highlight the very active stake that the mentally ill and their families have in evaluative research. Without taking these points into consideration, research investigations to determine therapeutic efficacy cannot be complete.

Mental health professional groups also have an active stake in the success of programs and on the outcomes of evaluation studies of program services (Isaac, 1971; Weiss, 1972). Concern for effective program planning and therapeutic results can be seen in the various calls for evaluation research by a number of professional groups. The American Psychiatric Association, The National Association for Mental Health, and American Psychological Association (APA) have, at various time, all called for increased research efforts in program effectiveness (Newman 1994, 1991; Lalley, 1992; Klerman, 1971). Though these calls for more research demonstrate an interest and active stake on the part of professional groups, little if any comprehensive evaluation research has been performed to date.

In response to the NIMH (1991) call for increased service research, the APA published a special section on Mental Health Services Research in the Journal of Consulting and Clinical Psychology (Newman, Howard, Windle, & Hohmann, 1994). In this special section, the authors not only reviewed the U.S. "National Plan of Research to Improve Services", but presented a series of research articles that exemplified methodological developments in this area of psychological research. These studies were presented to demonstrate innovative methodological approaches in assessing program and service efficacy. However, each of the studies appear to be focused on a different aspect of overall program efficacy, and are consequently limited in their ability to demonstrate overall program effectiveness or meet the research goals set forth in the NIMH national agenda. As discussed below, each of these studies failed to demonstrate program or service efficacy due to the positivist reductionist approach utilized by the researchers.

McGrew, Bond, Dietzen and Salyers (1994) address a key issue in services research: How to measure the fidelity of a mental health service intervention. They assembled a panel of 20 experts to first develop and then rate 18 mental health programs that use the assertive community treatment model (Witheridge, 1991). This model stresses active psychsocial rehabilitation to improve overall functioning and promote independent community living for severely and persistently disturbed psychiatric patients. The experts assessed the program's staffing patterns, organization and service domains on the index and then compared the respective programs on the outcome measure of reduction in days of hospitalization.

Newman et al. (1994) claimed that this study not only identified key ingredients of the service model, but was also able to identify how each program might improve their provision of service. However, given the data provided by this study using a causal comparative methodological approach, it is not possible to make such claims of program efficacy. The only stakeholders viewpoint in this investigation was that of the 20 mental health professionals who comprised the panel of raters. The ratings of patients, families, funding agencies, associated courts, and other interested groups may have been very different from those of the raters. In addition, other program variables such as environment, patient population pool and catchment differences, as well as patient characteristics and discharge differences may have impacted and skewed the results of this study. Thus, no efficacy claims can be made from the data that was presented. The methodology of this study reduced the rich, total number of variables

down to that which was believed to be related to program success. Thus, it tried to determine a cause and effect relationship among a few predetermined variables without justification. Though this study followed accepted standards for research and publication, it failed to describe the interrelated, molar effects of all program variables because it reduced the scope of the study to a molecular level of program assessment.

Studies by Vessey, Howard, Lueger, Kachele and Mergenthaler (1994) and Yeaton (1994) addressed the quantity of psychotherapeutic interventions in this special section on methodological approaches. These studies assessed the dose response rates of therapeutic intervention in individual psychotherapy and self help groups. Vessey et al. (1994) attempted to demonstrate a relationship between the amount of psychotherapeutic time and effective treatment outcomes and innovatively adopted a causal comparative study design. On the other hand, Yeaton's (1994) investigation used a correlational approach to compare the amount of actual attendance in self help groups to positive therapeutic outcomes. Though they utilized two different methodological approaches, both studies concluded that time and 'dosage' of therapeutic intervention had an impact on psychotherapy outcomes.

However, this conclusion cannot be validated solely on the basis of the data collected and reported on in the study. Additional programmatic, demographic, and clinical indicators could be responsible for the positive correlations and other statistical evidence that was reported in the results of these studies. Both study approaches contained the same conceptual deficit as the McGrew et al. (1994) study; they reduce the complex interaction of many service related variables to a simple set of predetermined factors. Thus, even the positive outcomes with the greatest effect sizes become suspect because we cannot determine whether these effects are solely due to these variables or if some other variables, outside the scope of the study are interacting and producing the observed phenomena. This problem is not restricted to these investigations but has been cited as potential weaknesses in both causal comparative and correlational study designs (Borg & Gall, 1989; Wood, 1974).

Uehara, Smukler and Newman (1994) attempted to resolve this problem of constricted variables in their study of allocation of service resources to various patient populations. They provide a field test of a procedure to match the social, psychological, and physical functional needs of patients to specific types and amounts of treatment and rehabilitation services. This study made extensive use of correlational data and advanced statistics to match patients to the appropriate type and level of service. Though this expands the list of variables under investigation to virtually all program and patient variables that may impact treatment outcomes, it still only takes the point of view of the clinician into account. Patient satisfaction, family involvement, cost effectiveness and overall program efficacy from the point of view of the public at large and the funding source still cannot be accounted for within a correlational study of this type. Thus, this methodology also falls short as a vehicle for determining overall program efficacy.

Though the methodological approaches used in each of these studies are generally accepted as innovative scientific investigations suitable for publication in the psychological literature, each study has difficulty accounting for the full range of interaction between not only the program variables but from the point of view of each of the main stake holders in mental health service programs. Thus, these studies have difficulty providing a comprehensive account of program effectiveness. Though these methodological approaches may be instrumental and valuable as part of an overall evaluation effort, they cannot be used as the sole basis for determining success in mental health service programs. A comparison contrast of the main methodologic approaches, presented in the following section demonstrates the advantages of departing from the reductionism inherent in traditional approaches, in favor of a more comprehensive evaluation methodology.

COMPARISON CONTRAST OF RESEARCH DESIGNS IN SERVICES RESEARCH

Correlational, causal comparative, and evaluative research methodologies are the most common research approaches used to evaluate naturally occurring service programs (Borg & Gall, 1989). Though they have much in common, they differ in their utility, comprehensiveness and ability to establish cause and effect relationships among study variables with a strong degree of certainty. As a consequence, they also differ in their ability to strongly predict future effects and causal patterns that can be attributed to the study variables. This difference is primarily due to the limitations of the methodologies to attribute the full range of possible causes to effects observed in natural or artificial/experimental settings. Though each method has situational and experimental advantages over the others in program research, each varies in its situational utility as well.

Correlational Designs

While the correlational method is well suited to establishing relationships between the variables, it cannot demonstrate cause and effect relationships by itself. The correlational method is restricted to quantifiable data in the data set and therefore limited in its utility. Though readily applicable to quasi experimental study situations, its often difficult to apply in natural settings where identification and measurement of the most important variables often becomes difficult. This problem is illustrated by the results obtain in the Yeaton (1994) study which investigated the relationship of patient attendance in self help group meetings to successful completion of an alcohol treatment program.

This study examined the relationship between rates of patient attendance and successful completion of programs. The relative rates of attendance in the service milieu of self help groups are compared to the rates of successful treatment outcomes as a measure of programmatic effectiveness in treating substance abuse. However, collateral treatments for substance abuse and/or other deficits were not discussed. In addition, the actual service components of the self help program were not discussed. As a consequence, any relationship between the study variables of attendance and outcome becomes inconclusive. The actual effects that were noted may be due to variables outside the scope of this investigation that were related to the study variables. Thus, from the actual cause and effect relationship demonstrated by this single correlational indicator, programmatic effectiveness cannot be inferred.

Correlational method research studies are best suited to discovering relationships solely among study variables. As illustrated by the Yeaton investigation, it is very difficult to apply this approach to mental health service studies. Correlating the number of variables that define program effectiveness, both within and between service programs, becomes almost impossible to measure with this approach. When compounded by the various interests and focus of each stakeholder associated with a treatment program, the correlational method becomes almost useless in defining what works, for whom, under what circumstances.

Causal Comparative Designs

The causal comparative method is described as well suited to demonstrating significant relationships, group norms and traits in natural settings (Borg & Gall, 1989). This method can be also be used in study situations where experimental manipulation is difficult or impossible, such as in mental health service studies. However, the causal comparative method can only demonstrate causality from the data presented within the narrow scope of the study variables and is therefore, also limited in its ability to suggest causality in either experimental or natural settings. Alternative interpretations are often possible when this method is employed (Borg & Gall, 1989; Wood 1974). Thus, this method is similarly limited in it utility and comprehensiveness to demonstrate a treatment program's level of efficacy.

This problem was demonstrated in study described by Uehara et al. (1994). This investigation attempted to answer the question of "Who needs what services and what degree of care?". It was actually a field test of a procedure to identify and link the psychological, social and physical functioning needs of individuals with severe and persistent mental illness to specific levels and types of treatment programs and rehabilitative services. Using the LONCA scale to assess patients level of functioning, the researchers attempted to match the level of patient need to the level of care in a clustering method. The LONCA scale is an instrument designed to measure patients functional level across a wide range of psychosocial dimensions. It was speculated that the use of such a scale to place patients in programs that would specifically meet their needs would improve the treatment outcomes for this population. The degree of dysfunction would determine the level of appropriate care that should be provided.

Though 65 case managers carefully rated patient's level of need and the resulting data set was factor analyzed to cluster patients into groups that might benefit from different levels and types of care in community based settings, no actual outcome data was provided to substantiate the underlying assumption that there is a causal connection between level of dysfunction and the various outcomes that patients experience in a variety of treatment programs. In addition, critical variables in patient recovery and program operations were not taken into account. The effects of patient's level of motivation for treatment, demographic profiles, diagnostic groupings, level of patient satisfaction, program modeling, program milieu/environment, and other factors may also play an important role in determining whether a patient will respond to treatment within a given treatment program or not. Using their method, these variables could not be taken into account. Thus, the results of this study remain inconclusive.

The causal comparative method, like the correlational method and relational methods in general is limited in its ability to establish cause and effect relationships between study variables. As noted in the Yeaton and Uehara et al. studies, both methods can be criticized because they attempt to break down complex behavior into very simple components. Understanding the causal variable or set of variables that are related to the complex activities or traits of a mental health service program is beyond the scope of the research study when these methodologies are utilized. Generally, the phenomena and behaviors associated with a operational service program are so poorly understood that incomplete sets of study variables are chosen for study and analysis. This appears to have been the case with all the studies profiled in the Journal of Consulting and Clinical Psychology special section on mental health service program efficacy studies. In addition, analysis of multiple variables from one setting will not expose the complex interaction of variables across multiple settings or subject groups in other programs. These and other problems of measurement and analysis contaminate or weight inferences and result in erroneous or misleading conclusions. This limits the comprehensiveness and utility both methods in studies of natural events and phenomena, such as those that occur in mental health service programs.

Evaluative Designs

Of the principle research methodologies used to determine the effectiveness of mental health service programs, the evaluative method is the most suited to demonstrating descriptive relationships, not analytic ones. Thus, it is the most applicable to the study of mental health program efficacy.

Evaluation studies usually point out cause and effect relationships in natural settings. Without the constraints of the experimental study controls or sole use of quantifiable data sets, evaluative studies can identify the most salient relationships among all quantitative and qualitative variables in service programs. Because of this, the evaluative method is more comprehensive and has a higher degree of utility in natural settings than the other two methods. The evaluative method is an applied research method that focuses on determining the merits of educational, job training, health care and other

institutional programs in health, education and welfare. This approach differs from correlation and the causal comparative methods in that it not only looks at the relationship of a few, obvious variables to determine a cause, but examines all observed variables that may impact the goals of the program under study.

With evaluative methodology, the causes of the positive or negative program outcomes become the main focus of study. Using program goals and actual individual and group performance measures in meeting those goals, evaluation researchers attempt to locate factors related to the actual program outcomes. Traditionally, an evaluator will work directly with program leadership, staff, and consumers to determine the most salient factors that define program performance with regard to the goals of a program. In ideal evaluation study situations, mental health service program staff, directors, funding sources and all other groups that have a stake in the investigation are invited into the variable identification phase to identify the critical program variables to be used in the study, methods of data collection and subsequent data analysis techniques that will be used to determine program efficacy levels. Once determined and agreed upon by all the stakeholders, these factors and study procedures produce results that can be returned to the stakeholders of the program to implement program modifications and improvements. Thus, the results of an evaluation research study can be used to modify program operations to increase performance toward meeting those program goals more effectively.

Unlike other research methodologies, evaluation research is usually initiated by someone's need for a decision to be made about policy, program management, or strategic planning. By contrast, experimental methodologies initiate studies based on a hypothesis; the research is conducted to reach a conclusion about the relationship between the variables and whether to reject or accept the hypothesis. In evaluation research, where the focus is on making practical decisions that will impact the effectiveness of a program, the emphasis is on testing variables against program goals in a decision making process, rather than hypothesis testing.

This decision process examines the impact of a mental health treatment program's components and modes of service delivery in meeting the stated treatment and outcome goals of the program, then uses the evaluation data to redefine and modify the service program to more adequately meet the needs of the patients. In addition, the goals and objectives of the program and treatment components are reexamined to improve the relative worth of the program for all the stakeholders associated with it. These stakeholders include not only program leadership and staff, but consumers, community participants, funding sources, and other constituent groups that have a vested interest in the successful outcomes of the program as well.

DonGiovanni (1988) performed an evaluation research study of a program for mentally ill chemical abusers. As in the Yeaton study, patient participation rates in group therapy and other program components were compared with patient outcomes as measures of mental health program effectiveness. However, this study also included measures to determine the overall level of patient satisfaction in the program, attempted to measure recidivism, polled referring hospital staff as to their opinion of the program, and also surveyed community based mental health providers to obtain data on perceived program effectiveness.

These measures incorporated the opinions and views of all the major stakeholders associated with this program. Thus, the results of this study demonstrated not only the overall level of effectiveness and

relative worth of the program, but punctuated the need for additional program modifications to coordinate all the services of the program in a more cohesive, comprehensive fashion.

The DonGiovanni study illustrates the distinctive characteristic of evaluation research studies. This type of study examines the relative worth and merit of a program or program components. Thus, judgements of programmatic merit and worth that are not emphasized in other research methods are not only appropriate, but necessary in the evaluation of a program's effectiveness in its natural setting. Causal factors or variables that impact program effectiveness are also judged as to their worth, merit and value in meeting program goals.

Evaluation research draws heavily from other methodologies. Qualitative as well as quantitative data collection and analytical techniques are often used. In the DonGiovanni evaluation, correlational data was used along with the qualitative data from surveys to determine the program's relative worth. Because of this, cause and effect determinations arise from a richer, more comprehensive data set than with sole use of quantitative data and advanced statistics. Thus, the use of evaluation research methods in this mental health service program allowed for more comprehensive determinations of what works, for whom, under what conditions.

The only major limitation of the evaluation research method in mental health service studies lies in their generalizability. Due to the applied nature of this method, programmatic and situational variables tend to be specific to the program under study. It is therefore often difficult to generalize the results to even similar program types. Since each program study is situated in different physical environments, with different staff, and other characteristics, the evaluation study becomes customized to that program's variables. Thus, generalizing the conclusions of one program evaluation to other programs may be difficult because many of the salient variables change from one program to another.

However, many of the 'lessons learned' from one program can be applied and tested in other, similar treatment settings and may serve as models to enhance program or program component effectiveness in those programs as well. When performed on a program by program, case by case basis, such evaluation research data may serve as valuable tools for program modification and improvements.

Finally, the evaluative method is not constrained to hypothesis testing, but seeks to functionally establish the most salient variables operating in the natural settings of mental health service programs. Evaluation studies attempt to determine the impact of complex variable interaction on the goals of the program. The primary advantage of using this method is to provide data to policy and decision makers that can be used to improve program performance to more successfully meet program goals. Thus, it is both comprehensive and readily applicable to studies in naturally occurring mental health program settings that require data for not only research purposes but for improvements in program or program component performance as well.

Fourth Generation Evaluation Research and The National Plan of Research to Improve Services

Guba and Lincoln (1989) have traced the development and expansion of evaluation research and have refined the methodological approach to not only reflect state of the art enhancements in health and mental health program assessment, but provide a potent vehicle for program improvement as well. They note that the first generation of evaluation concentrated on the systematic collection of data and measurement of phenomena, while the second generation dealt with description of patterns of strengths

and weaknesses with respect to certain stated objectives. The third generation of evaluation research focused on judgements of relative worth between programs and program components.

Though the various generations of evaluation built on the gains of preceding phases, each successive generation providing a foundation for more detailed and sophisticated assessments of programs and organizations, there remained significant limitations in evaluation methodologies. The main problems with the first three generations were a tendency toward managerialism, failure to accommodate value pluralism, and an overcommittment to an experimental paradigm of inquiry. A tendency toward managerialism means that the evaluator and the clinician/manager/administrator responsible for the program under study become either too close to remain objective and impartial or become adversarial. This may contaminate or shade the results of the study. This also occurs in traditional correlational and causal comparative studies. Failure to accommodate value pluralism refers to the inability of the investigator to incorporate the values and viewpoints of all those who have an active stake in the outcome of the study.

Finally, most first, second, and third generation evaluation research studies, as with other social scientific methodologies, tend to make sole use of the scientific method to determine the 'truth' or 'truths' underlying a phenomenon instead of focusing on the overall worth of the programs and services to the patients and the communities they serve. The recognition of these deficits in evaluation methodologies led to the development of has been referred to as "Fourth Generation Evaluation Research" (Guba & Lincoln, 1989).

The fourth generation of evaluation research is responsive evaluation. It has been termed responsive because it seeks out different stakeholder views in determining the variables and instruments that will used in the investigation and then responds to the needs of all those who have an active stake in the evaluation process and results.

Fourth generation, responsive evaluations have four main phases that may be reiterated or overlap. In the first phase stakeholders are identified and solicited for those claims and issues they want to bring into the research study. Guba and Lincoln have identified three main classes of stakeholders who would have an active interest in a program investigation and its outcomes: "The agents, those persons involved in producing, using or implementing the (study results); the beneficiaries, those persons who profit in some way from the use of the (study) outcomes; and the victims; those persons who are negatively affected by the (study)"(1989, p.40). In the second phase all stakeholders are introduced to the others to begin the negotiating process through comments, agreements and/or disputes to determine what issues and topics will be assessed by what instrumentation. The third phase involves further information collection as non resolved disputes are investigated and further negotiated. Finally in the fourth phase, negotiation among stakeholding groups, under the guidance of the evaluator, takes place to reach a consensus and the information is collected, analyzed and disseminated to all the stakeholders for comment and publication.

Using the process oriented, fourth generation summative worth evaluation methodology would improve the current state of mental health services research and fulfill many of the goals set forth in the U.S. national plan of research to improve services. Instead of researchers and program directors choosing critical program variables and using current correlational, causal comparative or quasi experimental methods to establish a 'scientific truth', program staff, patients, funding sources, governmental agencies, and other interested stakeholders could collaboratively agree on the critical study variables and study methodologies that would be used to determine the relative value of the mental health service. The

results could then be used not only to determine what works in one program or another for given patient populations, but could also be used as a tool to improve services in the study programs as well. As each new set of data within a program is analyzed, remedial action plans could be collaboratively agreed and a new evaluation data obtained and analyzed to ensure a process of continuous quality improvement. Thus, in using this responsive evaluation methodology, not only would overall levels of mental health program effectiveness be obtained, but a mechanism could be established to allow for continuous quality improvement in the program over time.

The DonGiovanni (1988) evaluation study identified all major stakeholders and included their participation in the study and in the program modification phase after the results were analyzed. Though these stakeholder did not have the degree of participation mandated by responsive evaluation methodologies at the onset of the investigation, they participated in the results and program modification phases after the initial level of effectiveness were obtained. In addition, it was noted that ongoing program evaluation involving all the major stakeholders would continue into subsequent evaluations of that program. This goes far beyond the simple collection of data that traditional evaluation and experimentally based studies reported on, to include a program monitoring and improvement mechanism for future program improvements. Thus, in this and other responsive evaluation studies, the participation of all associated vested interest groups becomes not only a research tool but a programmatic problem solving mechanism as well.

Seligman (1995) refined his responsive evaluation approach to include all stakeholders in every step of the evaluation process. In addition, he demonstrated how this approach can be applied not only at the local program level but at a macro, national evaluation level as well. In this impact evaluation of rural health and mental health services in Panama, almost all the criteria for evaluation were determined by the stakeholders at the local level. Though selected criteria were included by national and regional health planners, the bulk of the program impact indicators were determined, measured, analyzed and reported by local stakeholders as a group. This data was then aggregated at the regional level to assist in future health and mental health planning at the regional and national levels.

This study demonstrates the advantages in using a responsive evaluation approach to evaluate and monitor program effectiveness. Continuous quality improvement mechanisms are incorporated into the basic study design to not only provide data on program effectiveness but a mechanism for future programmatic changes and innovations to improve the quality of patient care. After the initial data collection phase of the study, baseline data was available for decision making at the local level. All stakeholders then participated in developing action plans to improve the quality of care at the program level and time tables were established to measure the impact of those action plans. Though the results of this second data collection phase have not yet been reported, it appears likely that quality of care will have improved due to the implementation of the action plans, primarily due to the continuous quality improvement mechanisms that were built into the study design.

This research design improved on that of DonGiovianni by incorporating greater stakeholder participation in the decision making process at the local level. This produced greater interest in programmatic problem solving activities at the local level and provided a mechanism for long term, continuous quality improvement through action plans based on program and patient data indicators. In addition, the centralized data reporting approach provided regional and national health care planners with a rich source of quality of care and outcome data with which to plan future programs and allocate resources. NIMH (1991) has identified key areas and sub areas that could benefit from such mental health services evaluation research:

Table 1.
Target Program areas for Evaluation Studies

Characteristics of Mentally Ill People
- Epidemiology and Service Settings
- Impairments in Physical and Psychosocial Functioning
- Family Matters: Problems and Resources.

Assessment Research
- Diagnosis and Measuring Severity and Disability
- Assessing Physical Health
- Measuring the Quality of Life

Understanding the Family's Burden
- Determining Rehabilitation Status.
- Independent Living Skills

Extended Clinical Research
- Types of Treatment
- Treatment Settings
- Integration, Continuity, and Quality of Care
- Special Populations, Special Treatment Issues.

Rehabilitation:
- The Road Back
- Social Skills Training
- Vocational Rehabilitation
- Independent Living
- Minority and Cross Cultural Issues.
- Consumer and Family Perspectives.
- Habilitation Services.

Outcome Research: The Effects of Caring In:
- The clinical domain.
- The rehabilitative domain.
- The community domain.
- The overall public welfare domain.

In each of the NIMH target research areas, responsive evaluation methodologies that incorporate a variety of methodologies to determine efficacy and program value to all stakeholders would provide more comprehensive results than more traditional methodologies, tied to the scientific method. In addition, use of this research approach would give a voice to all the stakeholders who have an interest in treatment efficacy and successful program outcomes in any given mental health program, without the disenfranchisement that often occurs in many traditional research investigations.

Discussion

In an era of shrinking budgets, ongoing deinstitutionalization and administrative reorganizations, evaluation research methodologies provide not only a framework to assess what works for which patients under what circumstances, but a mechanism for incorporating the views of all stakeholders in the process. Due to the fact that evaluative research methods are not constrained to the study of molecular events and relationships among only a handful of variables, a variety of qualitative and quantitative research techniques can be incorporated into evaluation studies which produce molar, global outcomes that more accurately demonstrate efficacy then traditional approaches.

Of the most commonly used research methods, the evaluative approach is the most comprehensive and applicable method for understanding complex variable interactions and is well suited to not only

determining cause and effect in natural settings, but determining the relative value of mental health programs as well. Without the constraints of experimental study controls and manipulations, evaluative research can identify the overall, global relationships among all important factors that operate in a mental health program's input, process, content and products. Though outcome studies of this type may be constrained by generalizability limitations, this method offers a more comprehensive approach to applied research problems than either causal comparative or correlational methodologies and is an extremely useful tool for many applied research projects that cannot be experimentally manipulated in a scientific paradigm. Thus, evaluation research is the most useful approach of the prinicple investigative approaches in determining the global programmatic determination of 'what works, for which patients, under what circumstances' in mental health treatment programs.

Finally, evaluation research methods can incorporate the views of allied professionals from a variety of disciplines, program administrators, directors, patients, families, and community action boards more readily than other methodological approaches. In addition, it can be more readily applied to the evaluation of a wider variety of mental service programs than traditional research approaches (Guba & Lincoln, 1981; Windle & Lalley, 1992). Since the intent of this research is to determine the value or worth of services in a particular program or program model, evaluation research studies can provide efficacy data that fits within the worldview of all interested stakeholders. This leads to greater public acceptance and better direction in mental health program planning, funding, and clinician training. Most importantly, evaluation research promotes more effective treatment programs to enrich the lives of those patients and families who must endure the financial, social, and personal costs of mental illness on a daily basis.

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Therapeutic Program Models for Mentally Ill Chemical Abusers

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Abstract: *This paper reviews the central issues in treatment strategies and program development for mentally ill chemical abusers (MICA patients). Patient treatment needs, historical context for divisions of service/system, treatment philosophies, and program model components are discussed in the context of treatment efficacy, program funding and community based treatment policies with regard to comorbidity. An integrated services approach, utilizing symptom and deficit reduction, within a combined holistic and patient centered treatment philosophy is outlined. A comparison of patient outcomes between a traditional disease specific program and an integrated program is provided. The potential benefits of treating MICA patients in integrated treatment programs are discussed.*

INTRODUCTION : Patients diagnosed with severe mental illness, who also suffer from substance abuse or addiction disorders present a variety of individual, social, fiscal and political challenges. Such patients stretch the ability of traditional community based treatment programs to deliver adequate services to effectively meet the multiple treatment needs of these individuals. These problems have led to the development of a variety of treatment models designed to treat the dually diagnosed. (Bachrach, 1984; Drake, 1991; Minkoff 1987). A review of such program models, their underlying theoretic and philosophic assumptions, historical development, and treatment efficacy sheds new light on the utility of each model to adequately meet the needs of this emerging patient population.

Deinstitutionalization and the corresponding increase in the number of homeless mentally ill has been associated with the emergence of a growing population of patients with concomitant mental illness and chemical abuse (MICA patients).

Numerous studies have demonstrated a rate of substance abuse and or dependency among the mentally ill at between 32 and 85 percent (Schwartz and Goldfinger, 1981; Safer 1987; Drake, Osher and Wallach, 1989). MICA patients are the most frequently cited population of dually diagnosed patients in the professional literature (Psycinfo, 1993). They have been reported to utilize increased rates of acute hospitalization, have histories of more housing instability, homelessness, criminality and homicidal/suicidal behavior than either the mentally ill or chemical abusers alone (Caron, 1981; Drake

1989;Osher & Kofoed, 1989; Safer, 1987). Poor medication compliance and response to treatment and services has also been linked to this dual disorder (LaPorte, 1989; McLellan, 1986).

MICA patients have not only created significant treatment challenges for traditional treatment programs, but for the entire mental health and addiction treatment care systems (Minkoff, 1991). Bachrach (1986 87) has referred to MICA patients as "system misfits" who do not measure up to the typical 'patient profile' within either the mental health or addiction systems of care. Traditional mental health programs are often poorly equipped to address dependency and ongoing intensive recovery needs of MICA patients, while addiction programs generally have difficulty treating MICA patients with psychotic symptoms or who require medication and psychotherapy to resolve a variety of various mental health issues.

Historically, treatment modalities for all dual diagnosis populations have been developed to deal specifically with symptom reduction and long term rehabilitation for each particular population. However, these programs have met with limited degrees of success in treating the dually diagnosed (McLellan, 1986; Schuckit, 1985). MICA patients have complex treatment needs and interactive symptomatology, requiring a more integrated approach than is generally employed (Breakey, 1987). Depression, delusions, and hallucinations, for example, are often related to, caused by, or intensified by substance abuse and addiction.

A variety of hybrid program models have been proposed and developed to meet the multiple clinical needs of MICA patients (Evans and Sullivan, 1990; Osher and Kofoed, 1989, Minkoff 1989).

These models generally fall into one of three categories.

1. Disease specific models with modifications: These traditional substance abuse or mental health programs attempt to treat the multiple symptoms of MICA patients by incorporating techniques of mental health or addiction counseling into their spectrum of services. Despite these enhanced techniques, the primary clinical focus in such program generally remains on the principal diagnosis of mental illness or substance abuse.

2. Linkage programs: Though similar to disease specific models in that they maintain a traditional approach to treating either mental illness or substance abuse, these programs generally deal with additional MICA treatment needs by referring patients to other clinics to treat the concomitant mental illness or addiction issues. Because of this, linkage treatment programs are more of a treatment strategy than an independent model and can be considered hybrids of existing disease specific program models.

3. Integrated programs: Incorporate the clinical resources and systems necessary to not only meet the multiple clinical needs of MICA patients within a single program, but to do so in an individualized manner; customizing treatment planning and services to meet the needs of individual MICA patients.

Most disease specific treatment models for MICA patients emphasize sequential program modeling, in which patients attend collateral treatment after they have met their current treatment goals in substance abuse or mental health (Minkoff, 1991). Linkage program models generally emphasize a parallel treatment model that requires patients to attend collateral treatment in another program for the mental health or substance abuse treatment they cannot receive in their current program. This parallel service system, used in linkage models, attempts to deal with both addiction and mental illness simultaneously, while disease specific, sequential models, first treat the mental illness or substance abuse, then send the patient to another program to work on the remaining symptomatology.

However, in both disease specific and linkage program, generally only one treatment philosophy is stressed for MICA patients; and it is typically substance abuse treatment (Minkoff, 1991). In such programs, mental illness and underlying pathology are often treated as secondary to the substance abuse, and the primary treatment phases and components generally mirror that of traditional substance abuse treatment programs (Osher & Kofoed, 1989).

Effective treatment for either the addiction or mental illness symptomatology, first requires clinician understanding of the interaction between all presenting symptoms. Thus, the first step in meeting the treatment needs for MICA patients is a complete assessment of all presenting symptoms. However, in many traditional disease specific and linkage program models, initial assessment and instrumentation are often selected to measure only the aspects of the patients' symptom constellation that can be treated at that facility. As a consequence, other deficits, such as medical illness, history of trauma, skill deficits or inadequate/antisocial support systems, perceptual disturbances, and deficits in cognition are neglected (Koegel & Burnam, 1988; Wright and Weber, 1987). On the other hand, integrated programs are generally designed to take into account the full range of patient symptoms and distress and customize treatment to meet these patient needs.

The use of an integrated model has clear advantages over disease specific models of care for MICA patients. A detailed review of the historical development, theoretical/philosophical assumptions, model components and efficacy punctuates its advantages as a model for effective treatment.

HISTORICAL CONTEXT AND PHILOSOPHIC ASSUMPTIONS

Over time, established research and treatment programs for population specific diagnostic categories have produced barriers to patient care. This is due to over specialization of treatment programming and tends to limit access or reduce services for the dually diagnosed. Clinician, program, institution and funding bias have contributed to the development of programs that are focused on treatment within disease specific categories, such as mental illness or substance abuse. This bias is generally in the direction of treatment of primarily single diagnosis symptomatology. It has resulted in the development of treatment programs and associated techniques that concentrate on one aspect of patient pathology while excluding others, such as psychotic spectrum and mood disorder symptomatology. The traditional, 12 Step Method of Alcoholic's Anonymous and Narcotics Anonymous are examples of such treatment strategies (Cummings, 1993). These treatment programs generally discourage the use of all foreign substances, even medication to treat mental illness. In many of these programs, all aspects of care that appear to be in conflict with the 12 step model are discarded as potentially harmful to the substance abuse treatment.

In general, this bias within systems of care, or paradigmatic bias, is due to evolution of separate administrative divisions and funding pools which foster effective political and administrative organization at the expense of creative and innovative clinical care. Artificial and arbitrary divisions at the federal, state and local government levels continue to promote this process and consequently prevent programs from developing joint projects or crossing service boundaries to more effectively treat and manage patients with multiple diagnoses (Drake et al, 1991; Ridgley et al, 1990). Often otherwise eligible patients who seek treatment at single diagnosis facilities and who happen to have co existing disorders are refused admissions to or are prematurely discharged from such treatment programs solely on the basis of their category of pathology (Galanter et al, 1988). This situation has caused many population specific treatment programs to be over utilized and restrict entry due to space limitations, while other, less restrictive community mental health programs remain under utilized.

Prior to deinstitutionalization, almost all types of dually diagnosed patients received care from an integrated state hospital system. However, with the reduction of long term, state and federal institutional beds came a corresponding rise (albeit slow) in various streams of funding for community mental health centers and more recently for substance abuse programs. In addition, separate funding streams were also developed for the long term community based treatment of mental retardation and child/adolescent disorders. Each of these funding streams produced a corresponding division in both clinical research and service delivery.

The philosophies of treatment tended to vary as new funding streams and divisions of services developed. Mental health center models tended to adopt a medical/biochemical deficit philosophy, while substance abuse programs developed treatment programs that were based on an internal character deficit philosophy (Valliant, 1983). Other funding streams for MRDD and adolescent disorders produced programs based on combined medical and social environmental/ecological deficit philosophies (Humphreys & Rappaport, 1993).

Brower (1989) identified five distinct treatment philosophies that have emerged in disease specific treatment program models. He writes that many programs typically employ moral deficit, learning/behavioral, disease, self medication, or social deficit philosophies of treatment. Though each of these treatment philosophies have advantages when applied to a target population, each are compromised by their rigid adherence to that particular philosophy and are therefore limited in their efficacy.

The moral deficit philosophy is historically the oldest model for both substance abuse and mental health treatment. In this model, illness results from a moral weakness and lack of willpower. The goal of rehabilitation is to increase the patients willpower to resist their evil cravings for substance or resist the irrational urges of mental illness and become good. Though the moral deficit philosophy has the advantages of holding patients accountable and responsible for the consequences of their actions, the major disadvantage of this treatment philosophy is that it places the treating clinician in an antagonistic relationship with the patient. In such programs, clinicians must adopt a judgemental stance that is blaming and punative. The moral deficit philosophy is often embraced by patients themselves who feel guilty for their past actions and who readily assess themselves as bad and weak willed. And though this treatment philosophy may help some chemical abusers, it could be disastrous for the MICA patient who has no control over the biochemical imbalances that caused the mental illness and/or the substance abuser who may be hypersensitive to criticism or blame.

Disease specific programs utilizing a learning/behavioral philosophy assume that substance abuse and other deficit behaviors are caused by the learning of maladaptive habits (Marlett, 1985). In this case, the patient is viewed as someone who has learned 'bad' habits through no particular fault of their own. The goal of treatment is to teach new behaviors and cognitions that are more adaptive. The main advantages of utilizing this model are that clinicians are neither punitive or judgemental in their service delivery and the learning of new, more adaptive habits is the primary focus of treatment. Unfortunately, such models shift the focus of 'control' to the patient. Thus, fueling the patient's denial of either mental illness or substance abuse. Since they may deny that they are out of control, they may deny that any problem exists. For MICA patients who may resolve their chemical abuse or mental illness problem, this could have serious consequences because the remaining clinical deficits will not be resolved.

The disease/deficit philosophy is perhaps the dominant model used among disease specific program providers today (Brower, 1989). In programs that adopt this philosophy, substance abusers are seen as individuals who are ill and unhealthy, not because of an underlying mental illness, but due to the

disease of chemical dependency itself. Because there is no known cure for this 'disease', the patient is considered always and forever ill. The treatment in this case is complete abstinence. Chemical abusers are expected to "change from using to not using, from ill to healthy, and from unrecovered to recovering" (Brower, 1983, p.150). Although guilt is relieved because patients are not held responsible for developing chemical dependency, and treatment is neither punitive or judgemental, this treatment philosophy cannot account for people who return to normal asymptomatic drinking. When applied to mental health, this model cannot account for spontaneous remission either. Since these 'diseases' are considered incurable and only manageable, no spontaneous recoveries or remissions are possible. And for MICA patients with interacting symptomatology, what portion of their multiple problems can be considered part of a disease and what part is not even considered under this set of assumptions?

Programs that adopt a self medication philosophy assume that chemical dependency occurs either as a symptom of mental illness or as a coping mechanism for underlying psychopathology. The patient is viewed as someone who uses chemicals to alleviate the symptoms of a mental disorder such as depression. The goals of treatment for these programs emphasizes improvement in mental functioning. Chemical abusers and the mentally ill are expected to change from mentally ill to psychologically healthy. The major advantage with these programs is that psychiatric problems are diagnosed and treated along with the substance abuse symptoms. However, this is also the model's main disadvantage as well. Assuming mental illness as the etiology for chemical abuse negates the possibility that chemical abuse causes the psychopathology. Because the focus of treatment is on the resolution of underlying mental illness, the chemical abuse problems that may be the true clinical etiology may not be resolved for MICA patients. Social deficit philosophies of treatment tend to view chemical dependency and mental illness as a result of environmental, cultural, social, peer or family influences (Beigel & Ghertner, 1977). Substance abusers and the mentally ill are viewed as products of external forces such as poverty, drug availability, peer pressure, and family dysfunction (Brower, 1989). The goal of treatment in these programs is to improve social functioning by altering their environment or their coping responses to perceived stressors. This may involve group therapy, attending self help groups, residential treatment, and interpersonal therapy; all with the goal of improving social skills. An advantage in assuming a social deficit philosophy is that the role of the social environment is brought into clinical focus and treatment is geared toward reintegrating patients into their social milieu. The main disadvantage in adopting this treatment philosophy for the treatment of MICA patients lies in its exclusive treatment of social factors for problems that are often multifactored. This again implies the need for the adoption of additional treatment strategies that are based on often competing philosophies.

By accepting any of these underlying assumptions alone, and relying solely on one philosophic stance, researchers and practitioners perpetuate the status quo by remaining uncritical about the problems inherent in their models. This process has, as a consequence, produced service barriers that have discouraged or excluded large numbers of dually diagnosed patients from seeking, being admitted to, or successfully completing appropriate professional treatment programs (Bachrach, 1987; Humphreys & Rappaport, 1993). Instead of creating additional subpopulation and philosophic barriers, the critical question for both MICA treatment providers and researchers should be how we can best match MICA patients during their courses of treatment to the various programs and models in order to maximize outcomes in biopsychosocial and multivariate treatment programs. (Glaser, 1980, Marlatt, 1988).

PROGRAM COMPONENTS

An integrated system of care for MICA patients incorporates more comprehensive treatment philosophies and strategies than traditional disease specific models. Integrated approaches allow for the

use of the most appropriate level and type of treatment technologies available to rehabilitate patients at his or her particular level of need. Thus, integrative treatment plans can be customized to meet both the mental health and addiction needs of the patient.

Traditional disease specific and linkage programs tend to be more generic in nature, requiring patients to conform to the expectations of the program, as opposed to the program conforming to the needs of the patient. Many substance abuse models emphasize group and individual counseling in a highly structured, substance free, restrictive environment. These programs generally enforce abstinence from all substances, including psychotropic medication. Long term aftercare treatment focuses solely on sobriety issues. On the other hand, disease specific models in mental health concentrate on functional adaptation and rehabilitation in a less restrictive milieu, but minimize the problems of addiction. It is assumed in each of these program models that patients will be motivated to participate in treatment to alleviate their distress. Those who do not conform to the mandates of these programs are considered treatment resistant or treatment refractory and are encouraged to seek help elsewhere or discharged from the program.

Developing a comprehensive and more effective system of care requires the use of a wide array of services delivered under a conceptual framework that merges both addiction recovery and psychiatric rehabilitation. Minkoff (1989) has identified an integrated conceptual framework for treatment of MICA patients and the key concepts for developing such programs. The critical elements for developing such a system are as follows:

"1. Chronic psychotic disorders and substance dependency are both viewed as examples of chronic mental illness, with many common characteristics (biological etiology, hereditability, chronicity, incurability, treatability, potential for relapse and deterioration, denial and guilt), despite distinctive differences in symptomatology.

2. Each illness can fit into a disease and recovery model for assessment and treatment, where the goal of treatment is to stabilize acute symptoms and then engage the person who has the disease to participate in a long term program of maintenance, rehabilitation and recovery,

3. Regardless of the order of onset, each illness in considered primary. Further, although each illness can exacerbate the symptoms of and interfere with the treatment of the other, the severity and level of disability associated with each illness is regarded as essentially independent of the severity and level of disability associated with the other.

4. Both illnesses can be regarded as having parallel phases of treatment and recovery. Those phases include acute stabilization, engagement in treatment, prolonged stabilization/maintenance and rehabilitation/recovery. Osher and Kofoed (1989) have further subdivided the engagement phase into engagement, persuasion, and active treatment; prolonged stabilization is the intended outcome of active treatment.

5. Although, in dual diagnosis patients, progress in recovery for each diagnosis is affected by progress in recovery for the other, the recovery processes commonly proceed independently. In particular, progress in recovery may depend on patient motivation, and patient motivation for treatment of each illness may vary. Thus, patients may be engaged in active treatment to maintain stabilization of psychosis, while still refusing treatment for stabilization of substance abuse." (Minkoff, 1991, p.18)

Such a conceptual framework has a number of implications for program model design. Each system of care, within the integrated model, must include programs elements the meet the needs of the patient in

every phase of recovery and rehabilitation. In addition, the program must address levels of severity and disability within each phase of rehabilitation. For example, programs must provide for acute detoxification services for both psychotic and/or non psychotic patients; deliver services for the stabilization of psychosis, whether the patient is in active substance withdrawal or not; and provide individual and group therapy services that are designed for various degrees of dysfunction in both substance abuse or mental illness.

To operate this under this combined conceptual framework, integrated models must be staffed with sufficient numbers and types of clinicians to provide the customized, comprehensive treatment inherent in such a model. The following abbreviated list and description of service elements exemplifies the range of services that may be incorporated into integrated program model (Finney & Moos, 1984; Hellerstein, 1987; Hendrickson 1989; Kofoed, 1986; NYSOMH, 1990; Ridgely, 1987):

- Activity therapy designed to assist a patient in developing functional skills and obtaining social and environmental supports needed for independent community based living.

- Continuous assessment and evaluation a clinical process of identifying an individual's diagnosis, strengths and weaknesses, problems and service needs.

- Case management services the process of providing continuity of care by linking the individual to the service system and coordinating the provision of services.

- Primary therapy the provision of intensive, individualized treatment planning and therapy with emphasis on goal oriented problem solving, assessment of treatment strategies and provision of practical skills for assisting the patient in management of his or her illness.

- Crisis intervention services medication and verbal therapy designed to reduce acute distress and associated behaviors when the individual's behaviors or condition requires immediate attention.

- Medication therapy prescribing and/or administering medication, reviewing the appropriateness of the patient's existing medication regimen through review of records and consultation with the patient and/or family or care giver, and monitoring the effects of medication on the patient's mental and physical health.

- Medication education providing patients with information concerning the nature of his or her mental illness and the effects, benefits, risks and possible side effects of a proposed course of medication.

- Addiction counseling direct verbal therapy designed to reduce cravings and maintain thepatient in a clean and sober condition.

- Behavioral interventions token economies, level systems, positive and negative reinforcement schedules delivered programmatically, in group therapy and individual therapy to modify behavior toward more functional and socially acceptable levels.

- Psychiatric rehabilitative treatment interventions designed to increase the functioning of a patient with psychiatric disabilities with the aim of increasing patient success in a community environment.

- Symptom management delivery of appropriate techniques to intervene and/or reduce symptom severity by providing patient education that allows the patient to recognize the onset of psychiatric symptoms and engage in activities designed to prevent, manage, or reduce such symptoms.

- Group Therapy providing goal oriented group psychotherapy, behavior therapy, double trouble groups, addiction counseling, family therapy and other face to face contacts between staff and other patients designed to address specific patient deficits.

- Psychoeducation programmed modules to increase patient understanding regarding the causes, symptoms and self management of their dual diagnosis symptomatology.

- Therapeutic Environment providing a physical milieu and variably structured environment that will be conducive to treatment and will increase retention of the patients throughout their course of treatment in the program.

In addition to the comprehensive provision of the 'mix' of services, an integrated program should provide for acute stabilization, continuity of care, and ongoing stabilization and rehabilitation for both addiction and mental illness symptomatology. Relapse occurs often in both mental illness and substance abuse. Programs must possess or link with adequate facilities to stabilize patients during acute episodes and relapses. In addition, maintaining a vast array of services under one program umbrella, provides for continuity of care by short circuiting the "ping pong treatment" of bouncing back and forth between various programs (Ridgely, Goldman and Willenbring, 1990) . This usually occurs in linkage programs and creates a discontinuity of services for the patient and confusion in treatment planning for clinicians.

Finally, ongoing stabilization and long term rehabilitation must be designed into the phases of treatment to enable patients to build on the gains made within the integrated program. This may take the form of case management or ongoing day treatment. These program components reduce the incidence of relapse for both mental illness and addiction and promotes patient re integration into the community (Harris and Bergman, 1987).

The characteristics and program elements listed above generally describe common characteristics for integrated programs in residential and hospital settings. A review of the literature on integrated MICA programs also identifies five common characteristics for outpatient programs as well.

"1. Abstinence is a goal, not a requirement.

2. Patients with substance abuse and substance dependence are treated together.

3. Group models, with either staff of peer leaders, are fundamental.

4. Patients progress from (a)low level education or "persuasion" groups, in which patients have high denial and low motivation, to (b) "active treatment" groups, in which they are more motivated to consider abstinence and are willing to accept more confrontation, to (c) abstinence and support groups, in which they have mostly committed to abstinence and help each other to learn new skills to attain or maintain sobriety.

5. Involvement of available family members is recommended." (Minkoff, 1991, p.23)

By incorporating this vast array of services under an integrated conceptual framework, MICA patients, who typically fail in traditional treatment due to low levels of motivation or programmatic/system bias against either substance abuse or mental health issues, can be treated at their individual level and scope of dysfunction. The development of an integrated program model builds on the most effective treatment technologies available in addiction and mental health, while overcoming the differences that separate the systems and treatment programs. This comprehensive integration, serves not only the MICA

patients who receive treatment in the programs, but strengthen both mental health and addiction care systems as well.

A COMPARISON OF INTEGRATED AND DISEASE SPECIFIC MODELS

Anderson (1993) evaluated the treatment outcomes of two transitional living communities in Bellevue Hospital Center, New York City. This study illustrates the differential efficacy for a traditional, disease specific treatment model and an integrated program approach. The Transitional Living Community Program (TLC) was described as a hospital operated, residential rehabilitation facility for mentally ill, homeless men that utilized an integrated approach to treatment. This unit had been in operation since January, 1987. In this study, patient treatment outcomes of the TLC are compared with those of the Mentally Ill, Chemical Abusers Transitional Living Community (MICA TLC). The MICA TLC began operations to specifically treat patients diagnosed with both mental illness and substance abuse in May, 1991. This unit utilized a more traditional disease specific approach to substance abuse treatment.

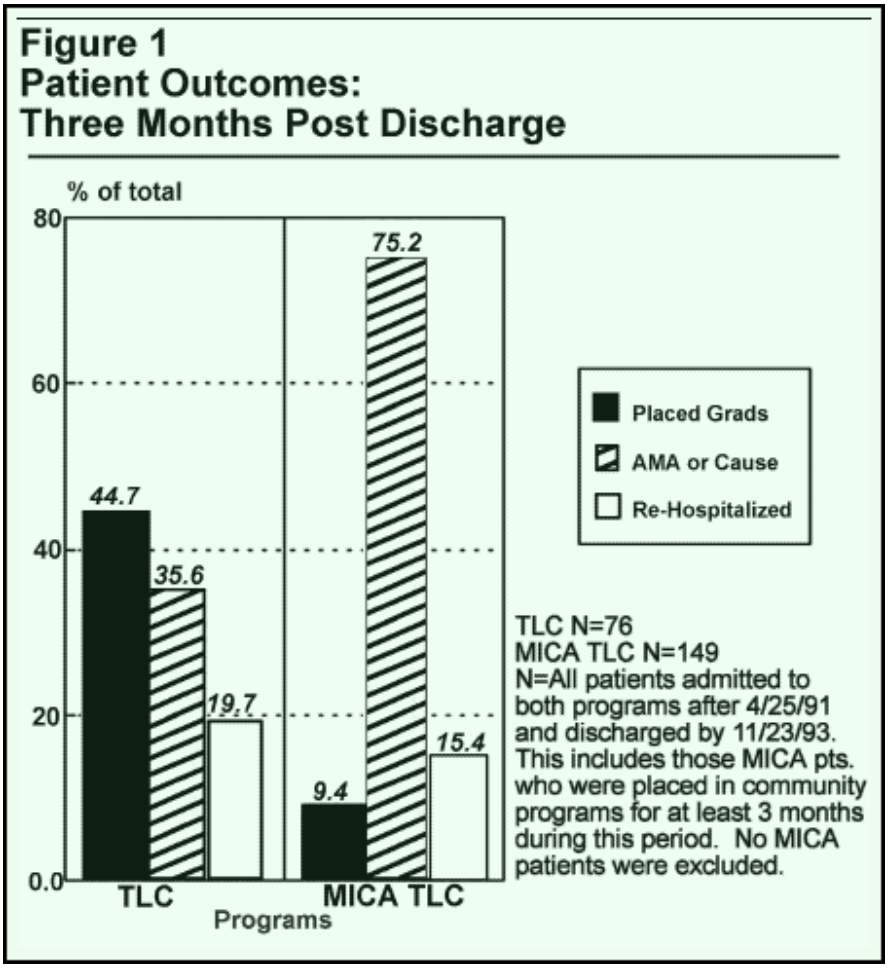
Both units accepted MICA patients, have identical staffing patterns and patient mix, operated in the same location on the Bellevue Hospital campus, and had the goal of rehabilitating patients over a six month period for eventual long term placement in the community. They only differed in their respective models of service delivery.

The TLC Program was a voluntary unit that engaged each patient in a contractual agreement for all therapeutic services delivered within an integrated treatment environment. This unit accepted dually diagnosed patients of all types, provided they were homeless, had an Axis I diagnosis of Mental Illness, and were ambulatory. As patients entered the program, the patient and the treatment team consulted and contracted for the amount and type of services the patient would receive. Patients who were not scheduled for group or individual therapy could leave the unit at will. Abstinence from intoxicating substances on this unit was encouraged but not mandated. Psychiatric rehabilitation was the main focus of all individual and group therapy sessions. This program customized the array of services delivered to each patients in a integrative model.

The MICA TLC operated within a modified therapeutic community (TC), disease specific program model. This program accepted all patients who were homeless, had Axis I and concomitant substance abuse diagnosis, and who were ambulatory. Within this model, all patients were required to remain on the unit and participate in all available services, including group therapy, activity therapy, and substance abuse counseling. Though the overall goal of this unit was identical to that of the TLC Program in terms of rehabilitation and placement into community based settings within a six month period, this program emphasized traditional 12 Step and substance abuse treatment and only minimally addressed psychiatric rehabilitation issues in one group therapy session per week. In addition, as in other traditional substance abuse treatment programs, all patients on this unit received the same level and type of treatment. In both programs patients only graduated and were placed into community based housing programs when they were functionally able to live independently. This required a global level of functioning of at least 75.

TLC and MICA TLC patient dispositions for a 30 month period are demonstrated in Figure 1. Within the context of this investigation, Graduates were defined as those patients who had completed the therapeutic program, had reached and maintained a Global Level of Function of at least 85, and had remained in community based placement for at least three months. AMA patients are defined as those who left the program against medical advise or who were requested to leave the program for violence or threatening behaviors on the unit.

With no significant differences found in patient age, SES, race, or hospitalization history, and including only the 110 MICA patients of the TLC unit, the TLC Program more than doubled the rate of the positive therapeutic outcomes of the MICA TLC Program. This was in spite of the fact that the MICA TLC had delivered 35% more service hours per patient than the TLC program during the same period.



The TLC program had delivered an average of 22.3 hours of group and individual treatment to patients weekly, while the MICA TLC program had delivered an average of 30.1 hours per week.

The results of this study suggest that the level of structure and/or the lack of individualized treatment of the traditional, disease specific therapeutic community model did not meet the needs of the patients diagnosed with psychotic spectrum disordered, chemical abusers on this unit. On the other hand, the TLC Program's individualized, integrative approach more effectively served the needs of most patients on the unit and did not have a differential impact on any sub population of MICA patients.

DISCUSSION

This review of the historical development, theoretical/philosophical assumptions, model components and efficacy of MICA treatment models clearly demonstrates the advantages of using integrated treatment models to treat the dually diagnosed. The advantages of the model use were not only demonstrated on theoretical level but in clinical use as well. The efficacy rates of the two transitional living communities suggest that the use of an integrated approach which emphasizes the individualized 'mix' of treatment options produces greater patient satisfaction, and yields higher levels of efficacy than traditional, disease specific programs currently provide. In addition, integrating services within a single

program reduces costs and duplication of effort because patients are treated within the same facility. Adoption of a integrated program model allows for the customization of program services to meet the needs of individual MICA patients, instead of matching patients to rigidly structured, generic programs that may or may not meet their treatment needs. (Jolivet, 1993).

Though the integrated model presented in this paper is not a magic bullet and cannot resolve all the problems that emerge in treatment for the dually diagnosed, full and comprehensive treatment can occur simultaneously for the dually diagnosed patients of many categories, provided sufficient levels of staffing/staff training and program organization exist. Additional programmatic measures to discourage substance abuse, linkages with specialized medical facilities to treat compromising medical disorders, and adoption of level systems and/or other programmatic enhancements and technologies provides greater therapeutic treatment value for a variety of dual diagnosis categories, than current disease specific models provide in community based residential settings. (Polcin, 1992).

For integrated programs to effectively deal with a wide range of therapeutic issues, professional level training must include integrative treatment technologies and strategies for multiple, interacting symptoms. Mental health education programs generally include some form of training in various psychotherapeutic paradigms. This may include cognitive behavioral, client centered, interpersonal, psychoanalytic, family, systems, and other paradigmatically based treatment modalities and technologies. Additional professional training in the eclectic and/or integrative use of these therapeutic technologies with a variety of dually diagnosed patients can empower clinicians to more accurately assess and treat multiple categories of dual diagnosis within the same community mental health center.

Careful integration of program services will also allow for the normalization and destigmatization of many coexisting disorders. In traditional dually diagnosed and single diagnosis program models, many patients tend to view and identify themselves as part of the community within those programs. Upon completion of the program, they also tend to add the prefix ex to this identification (i.e., ex alcoholic, ex schizophrenic). In traditional, disease specific aftercare and community programs they often tend to identify themselves by their diagnosis as well (i.e., identification of self as an alcoholic in Alcoholics Anonymous)(Jolivet, 1993). Additional research may show that integrating a variety of MICA and single diagnosis patients within the same community based program may reduce this stigmatization. An integrative program approach may also encourage patients to assist in helping their "fellow community members" toward reaching their treatment goals and eventually maintain themselves more successfully in the community.

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Sectorization and Sub-sectorization of Mental Health Services in Developing Countries

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Abstract: *This brief article discusses the role of mental health as a sector and sub-sector for both developing and industrialized nations. It examines the impact of cross cultural professional and scientific bias in public mental health and argues for the integration of mental health services into the primary care systems of developing countries. The impact of excluding mental health services from primary care is illustrated by a Honduran health care development project, while the WHO sponsored regional care system in the western pacific region is discussed as a positive outcome of integrated mental health care .*

Sectorization and Sub-sectorization of Mental Health Services in Developing Countries

Cultural and professional bias exists in most intercultural endeavors. This is particularly true in international mental health, where the views and practices of international consultants from industrialized nations often conflict with the resources, needs and treatment philosophies of developing nations (Kleinman & Cohen, 1997). The underlying beliefs of mental health professionals from developed nations cannot readily explain or accept the differences in symptomatic expression or prevalence of mental illness due to cultural, biological and psychosocial differences of life in developing countries. Thus, the advice and technical assistance given by international consultants of the World Health Organization (WHO), other international organizations, and NGOs generally mirrors practices in their native countries. This often sidetracks and/or defeats mental health initiatives, and ignores basic tenants of public health practice (Des Jarlis, Eisenberg, Good & Kleinman, 1995).

In the industrialize world, the sub-sector of psychiatry and mental health has grown to the point of almost becoming and independent sector, with separate funding streams, tertiary hospitals and community based resources. Hence, the public health systems of most developed nations accept this situation and generally excludes mental health from their primary care and other public health agendas. This causes public mental health programs to exist in a similar vacuum. Transporting this dual practice to developing nations, without the benefit of the vast resources of industrialized countries, actually increases the drain on already overloaded physical and mental health systems and affects services for all patients who use public care systems.

Though WHO sponsored studies have shown a dramatic decrease in morbidity rates, and in general, life expectancies have risen from 40 to 66 years over the past half century, mental illness has risen dramatically in developing countries . Longer life spans have produced increased prevalence of Alzheimer's and dementia; and increasing rates of violence, depression, substance abuse and suicide have been directly linked to increased urbanization and economic restructuring of developing countries (Ustun & Sartorius, 1995). The WHO estimates that mental illness accounts for at least 25% of all acute care visits in developing nations and that up to half of these cases are misdiagnosed by primary care clinicians (WHO, 1995).

Without appropriate resources to maintain mental health services as a separate sector, the trend toward increased utilization of all health services will continue. Psychiatric and mental hygiene services should therefore be reintegrated into the public health services sector. For clinical training and education purposes, it makes sense to continue the mental health sub-sector separation. It also makes sense for the treatment of long term, chronically mentally ill or endangered patients, who are at risk for themselves or others and who require specialized care. However, most cases that are psychogenic in etiology never present to the few psychiatric facilities that do exist and rely on the public health care systems.

To bridge the gaps that currently exist in developing public health systems, reconnection of mental hygiene to the health sector is a necessary evil. This would improve not only mental health services but strengthen the entire public health system of participating countries.

A Case in Point:
In Honduras, for example, millions of dollars have been funneled into a primary health care promoter and delivery system since 1993 (World Bank, 1993). While this has helped to build a functional health promoter and regionally based health care system, it ignored the mental health care sector entirely. As a consequence, illness and injury due to family abuse, alcoholism, and major mental illness were virtually ignored and patients were forced to rely on the few understaffed and poorly funded tertiary hospitals that exist in the country. In addition, mental health hospitals received no additional funding and are currently operating at pre 1993 budget levels. This leaves patients in substandard conditions, attended by poorly staffed and in some cases poorly trained clinical support.

Had the development loan taken mental health services into account, there would have been a net decrease in both mental health and primary health care visits in acute care facilities over the past four years, and the goals of primary health care would have been met. As it stands, both systems suffered because Mental Health was treated as a separate sector and a luxury item in a developing country.

WHO has been working with a regionally based primary care approach to mental health services in 12 western pacific nations. This combines regionally and community based health care systems with mental health to deal with a variety of mental health issues in the context of overall health care (WHO, 1993). When performed at the local level through training and education (by mental health professionals) and reinforced by an active community based health promotion and case management system, the combined effort actually reduced acute care visits and served the patients, families, and communities in a more humane manner than most care systems of developing nations.

Getting back to the basic concept of recognizing mental health (including substance abuse and addiction care systems) as a sub-sector of health and utilizing it as a primary care resource will improve conditions and models of care for all patients of developing countries. After all, the ultimate goals of mental health care are the same as those of all health care systems: To reduce distress to the greatest degree possible and increase our patient's functional adaptation to their environment to the greatest degree possible. Integrating the mental health sub-sector into overall health care initiatives helps to meet these goals in a culturally specific, cost effective manner without the typical systems bias of the industrialized world.

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Socio-economic Changes and Mental Health: Setting a New Agenda for Prevention Strategies in Hong Kong

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Abstract
Recent economic crisis in Hong Kong leading to layoffs, closure of businesses and bankruptcies was used to account for the substantial increase in percentages of depressed moods, interpersonal relationship problems and vocational difficulties found among callers of a mental health telephone counseling service in Hong Kong. Socio-cultural factors were also put forward to explain the passive help-seeking behaviors of callers, as well as the relationships between the increase in vocational difficulties and depressed moods and anxieties observed in the male callers. Suggestions towards the provision of primary and secondary prevention programmes in mental health were made.

Introduction
Since the Asian economic crisis of 1997, the economy of Hong Kong has undergone substantial changes. Before the crisis, Hong Kong had been described as " a hard-earned success" (Hong Kong Government, 1995), with impressive economic performance figures of about 5% increase in Gross Domestic Products; very low unemployment rate of 2-3%; and increase in real wage of about 2% in the three years preceding 1997 (Table One). Indeed, this economic success had not only benefited the entrepreneurs in Hong Kong, but also the general population. Many people had invested their life-long savings into stock and property markets, and others had borrowed monies for investment. Many indicators had pointed towards a positive and ever-expanding economy of Hong Kong.
By late 1997, the financial turmoil in Asia had spread to Hong Kong, and triggered off major speculative attacks on the Hong Kong dollars, and then the stock markets. As a result, the values of stocks and properties in Hong Kong depreciated to as much as half of their values before the crisis. Export of services slackened to virtually zero growth, and the Consumer Price Index had also dropped significantly. Since then, negative economic growth, bankruptcies, closing down of businesses, budget cuts and frozen salaries have become issues that are of major concerns to the government and the general public.

One such thorny issue is that of unemployment. Unemployment has reached an unprecedented rate of about 6 % (Table One) in the last two years. These unemployed individuals are experiencing the frustrations of searching for a job, and may have to wait for months or even years before they can find another one. Those who have jobs are not necessarily feeling better because many are fearful of the possibility of being laid off, should their organizations undergo budget cuts or bankruptcies. In fact, their worries are justified. In the latest release of the reasons for unemployment, the Labor Department documents that, in the last six months, there were 171 incidents of layoffs, closing down of businesses and bankruptcies, involving a total of more than 9000 people (Hong Kong Government, June, 1999).

Table One: A Comparison of Some Indicators of Economic Performance in Hong Kong in 1995, 1996, 1997, 1998 and 1999

Indicators	1995	1996	1997	1998	1999
Gross Domestic Products (real terms)	+5.5%	+4.6%	+5.2%	-5.1%	Not yet known
Unemployment/under-employment (real terms)	2 / 1.5%	3.5 / 2.3%	2.5 / 1.3%	5.7% / increased substantially	About 6% Unemployment
Wages (money terms / real terms)	11 / 2%	11 / 2%	7.1 / 1.7%	3% / only slightly higher than the inflation rate of 2.8% of the same year (i.e. no increase in wages in real term)	Major companies impose frozen salaries or even cut salaries or benefits

These socio-economic changes have aroused the attention of the mental health professionals. First, since studies have found a strong link between adverse life events and mental illnesses, particularly depression and anxiety disorders (Herbert, 1999), the current socio-economic conditions may have been affecting the mental health of some individuals in Hong Kong. Secondly, official statistics from the Hospital Authority (1999) in Hong Kong show that there is a rise in the utilization of psychiatric services in Hong Kong. Thirdly, The Samaritan Befrienders Association of Hong Kong has reported in a press release that, within the financial year of 1998-1999, there were 868 people who had committed suicide. The unemployed took more than half of the share, and men exceeded women by a ratio of 2.5: 1. The majority of these individuals had been unemployed for more than six months, and were mainly middle aged (Samaritan Befrienders Association, June, 1999).

In spite of these possible mounting mental health needs of persons with minor psychiatric illnesses, the mental health care system in Hong Kong does not appear to be making any concerted efforts to respond to the mental health needs of these individuals. In Hong Kong, psychiatric services are specialized services that cater mainly for individuals with severe psychiatric illnesses such as schizophrenia (Ma, 1990, Wong, 1996). There are relatively fewer individuals with severe minor psychiatric illnesses like major depression and anxieties that are being treated in the psychiatric facilities. The rest are probably consulting private psychiatrists, and/or attending counseling services in the community. Yet, there are those who may not be aware of their own mental health problems and are not receiving any treatment for their conditions. Indeed, many may just be visiting their own general practitioners who do not necessarily have the skills in detecting and treating persons with minor psychiatric illnesses (Goldberg et al., 1993).

The importance of prevention in mental health

The relationship between life events and mental health has been extensively studied. Researchers like Herbert (1997) suggest that psychological stress is linked to both the onset and course of a mental illness. Particularly, there is empirical evidence suggesting that unwelcome changes in life circumstances, such as unemployment, relationship breakdown, bereavement and major physical illness or injury, were strongly linked to depression and anxiety disorders (Paykel & Cooper, 1992, Finlay-

Jones, 1989). Some researchers further reveal that perceived loss of structured and normal pattern of living (Wanberg & Griffiths, 1997), and perceived threat to self-esteem (Furnham, 1985) associated with unemployment underscored the development of poor mental health.

The impact of changes in life circumstances on mental health of a population has clearly pointed to the importance of introducing prevention programs, particularly primary and secondary prevention programs, in identifying individuals who are at risk of developing minor psychiatric illness. Specifically, primary and secondary prevention programs in mental health may help to identify individuals who are at risk of developing poor mental health as a result of the changes in socio-economic circumstances. Prevention programmes can also reduce the suffering of those who have started to experience mental health problems, and prevent them from developing long-term and chronic mental illness (Shore, 1998). In the literature, Munoz et al. (1995) have demonstrated that prevention programs could prevent the development of a full-blown psychiatric illness such as depression. Llyod and Jenkins (1996) have also suggested that earlier prevention programs could be useful to prevent a minor psychiatric illness from developing into a chronic mental illness. Consequently, it may reduce the long-term costs incurred in the treatment and rehabilitation of a person with a chronic mental illness.

Socio-cultural factors in Hong Kong may have further hastened the needs to provide more preventive mental health programs for people who are at risk. First, resources for psychiatric services in Hong Kong have largely been allocated to rehabilitating persons with severe psychiatric illnesses (Ma, 1990). Secondly, evidence has shown that Chinese people have the tendency to somatize their mental health problems (Lin, 1985, Cheung, 1995), and may not recognize the fact that their mental health problems have been concealed under some medical labels. Thus, this issue of somatization has made it difficult for Chinese people to differentiate between genuine physical problems and psychosomatic problems resulting from the impacts of psychosocial difficulties. Lastly, Chinese culture ascribes a strong stigma to mental illness (Sue, 1994). Due to shame and face saving, individuals and their families will try to conceal their mental health problems from relatives and friends, lest the community will ostracize them. As a result, individuals suffering from mental health problems may delay seeking help from the mental health professionals.

A mental health telephone hotline and counseling service as a primary and secondary prevention program

A mental health telephone counseling service has been set up by the Mental Health Association of Hong Kong to provide assessment and referrals for those who are at risk of developing minor psychiatric illness in Hong Kong since 1995. This self-funded telephone counseling service has two major components. It has a 24-hours hotline service providing recorded messages containing information about stress, characteristics of some common types of mental illnesses such as anxiety disorders and depression, and psychiatric and social services available in Hong Kong. The second component involves having callers make direct telephone contact with the mental health social workers who are on duty. Social workers conduct brief examination of callers' mental state, provide specific information on psychiatric illnesses and social and psychiatric services, and make referrals for callers. This is a "one-off" service and brief follow-up services will be provided to a limited number of callers. The nature of these follow-up services is to ensure that callers have received the needed services, particularly in the case of a psychiatric emergency. Due to a shortage of manpower, this service does not provide in-depth short-term counseling for callers.

This paper reports on a study of the psychosocial characteristics of callers who utilized the mental health telephone counseling service between April 1997 and March 1998. Specifically, this study attempted to compare this profile to the profile of callers who had used the service between 1995-1996. It was hoped that the study would highlight the changing patterns of mental health problems found among callers in the two periods. The study also tried to explore the relationships between changes in socio-economic conditions and the changing patterns of mental health problems of callers in Hong Kong.

Methodology

Callers were self-referred or encouraged by relatives and friends and social workers of other social service agencies to call us. Some callers were relatives and friends of individuals who had mental illnesses. They called to seek advice regarding the conditions of the ones with the illnesses. A total of 658 callers had spoken to the mental health social workers during the period between April 1997 and March 1998. Forty-six percent were males. There were 51% of callers who were holding jobs and 38% were unemployed. Eighty-three percent called to discuss their own mental health problems while seventeen percent called to discuss mental health problems of relatives and friends. About 80% of the callers were aged between 21 and 40. Lastly, more than 43% of callers claimed that they had experienced their mental health problems for more than a year before they approached the service.

Mental health social workers completed a record form that contained information on personal particulars of callers, presenting problems, duration and impact of problems on the callers, life events that might have been related to the presenting problems, and the services provided by the workers. The record form also asked for information regarding whether callers were receiving psychiatric services. Those who were receiving psychiatric services were encouraged to contact their own social workers or psychiatrists if their problems did not require any immediate interventions. The profile of this group of callers was not included in the present study.

The Rehabilitation Programme Plan Review (1996) of the Hong Kong Government has suggested an estimation of 680,000 persons to be suffering from minor psychiatric illnesses in Hong Kong. The number of callers who took the initiative to call the phoneline for counseling represented a very small portion of the population. Therefore, findings could not be generalized to represent the mental health conditions of the general public.

Also, this study did not use standardized psychological or psychiatric instruments to measure the mental health conditions of callers. This was purposefully done because the nature of phone counseling only allowed a very limited time for conversation. The primary task of a counselor was to provide assessment and counseling to the callers. However, this shortcoming was somewhat compensated by the fact that all phoneline counselors were mental health workers with professional training in mental health social work. They were familiarized with the use of Brief Psychiatric Rating Scale, and were asked to make reference to it when making an assessment on a caller.

Results

Table Two compares the frequencies of occurrence of the types of presenting problems of callers in the 95-96 and 97-98 samples. It reveals that callers in both samples had higher percentages of unmanageable anxieties, depressed moods, interpersonal relationship problems and vocational problems. However, there was a substantial increase in the percentages of presenting problems of depressed moods and vocational problems found in the 97-98 sample.

Table Two: Percentages of Presenting Symptoms / Problems of Callers in the 1995-1996 and 1997 – 1998 Samples

Category	Percentage / Number 1995 – 1996 Number of Callers (864)	Percentage / Number 1997 – 1998 Number of Callers (676)
Unmanageable Anxieties	37.8% (327)	32% (214)
Depressed Moods	21.2% (183)	32.1% (215)
Sleep Disturbances	13.9% (120)	12% (81)
Psychotic Relapse	8.8 % (76)	8.8% (33)
Difficulties with Medication Compliance	7.8 % (67)	7.8% (45)
Problems in Adjusting to Mental Illness	11.5 % (99)	15.5% (104)
Interpersonal Relationship Difficulties	27.4 % (237)	33.8% (226)
Vocational Problems	13.9 % (120)	20% (134)

Caller could have more than one presenting problem. The total "N" might therefore be more than the number of Callers.

Table Three presents a comparison of demographic characteristics of callers from the two samples. Findings suggest that although there were still slightly more female callers than male callers in the 97-98 sample, there was a substantial increase in the percentage of male callers from that of the 95-96 sample. Correlational analyses were performed, with male and female callers as separate sub-samples, to explore the relationships among various presenting problems. It is observed that there was a significant correlation between depressed moods and vocational difficulties among male callers (r = 0.15, p<0.01) (Table Five). No such relationship was found among female callers.

Table Three: Percentages of Demographic Characteristics of Callers in 1995-1996 and 1997-1998 Samples

Type of Demographic Characteristics	Category	Percentage/ Number (1997-1998)	Percentage/ Number (1997-1998)
Sex	Male	39.9 % (345)	46% (314)

	Female	59.6 % (519)	54% (362)
Age	>20	11.2 % (97)	4.1% (28)
	20-40	70 % (605)	74% (500)
	40-60	14.5 % (125)	4.1% (28)
	60 or over	4.3 % (37)	0.7% (5)
Economic Status	Student	10.8 %	4.6% (30)
	Employed	42.1 % (364)	50.8% (336)
	Unemployed	34.8 % (301)	37.3% (247)
	Housewife	12.3 % (106)	7.4% (49)
Duration of Symptoms / Problems	Less than 2 weeks	11.3 % (980)	7.8% (52)
	2 week – 1 month	6.5 % (560)	9.5% (62)
	1 – 3 months	15.2 % (131)	15.7% (103)
	3 – 6 months	10.2 % (88)	9.6% (63)
	6 months – 1 year	8.4 % (73)	12.7% (83)
	Over 1year	42.4 % (366)	41.1% (278)
	Unknown	6 % (52)	3.5% (23)

Table Two also shows that both samples had higher representation of callers who were employed and unemployed. However, it is observed that there was a noticeable increase in the percentages of employed and unemployed callers in the 97-98 sample. Further analysis of the 97-98 sample uncovers that callers who were employed appeared to have significantly more anxieties than callers who were unemployed. However, the unemployed had significantly more depressed moods, and vocational problems than callers who were employed (Table Four). Correlational analysis of the relationships among various presenting symptoms of unemployed men suggests that there was a significant relationship between vocational difficulties and anxieties ($r = 0.188$, $p < 0.034$) (Table Five). No such relationship was found for female callers.

Table Four: Distribution of Types of Presenting Problems by Economic Status of Callers of the 97 – 98 Sample

Economic Status	*** Anxiety Symptoms	*** Depressed Moods	Sleeping Disturbances	*** Vocational Problems	Interpersonal Relationship Problems
Student	4.3% (9)	0.95% (2)	2.5% (2)	0% (0)	2.2% (5)
Employed	59.6% (124)	44.1% (93)	42.5% (34)	47.8% (63)	56.8% (126)
Unemployed	28.4% (59)	44.1% (93)	48.8% (39)	51.5% (68)	32.9% (73)
Housewife	7.7% (16)	9.5% (23)	6.2% (5)	6.7% (1)	8.1% (18)
N	208	211	80	132	222

(df = 3) *P>0.05, **P>0.01, ***P>0.001

Table Five: Correlations among Presenting Problems of Male Callers and Unemployed Male Callers

		Symptoms		
Callers' Characteristics	Problems of Callers	Anxieties	Depressed Moods	Sleeping Disturbances
Male Callers	Vocational Difficulties	0.073	0.15**	0.047
	Interpersonal Relationship Problems	0.052	0.035	0.031
Female Callers	Vocational Difficulties	0.002	0.001	0.103
	Interpersonal Relationship Problems	0.041	0.032	0.014

Unemployed Male	Vocational Difficulties	0.188*	0.139	0.098
	Interpersonal Relationship Problems	0.092	0.066	0.099
Unemployed Female	Vocational Difficulties	0.057	0.08	0.043
	Interpersonal Relationship Problems	0.094	0.011	0.013

*P>0.05, **P>0.01, ***P>0.001

Similar to the 95-96 sample, there were higher percentages of callers in the 97-98 sample whose ages fell into the 21 and 40 age bracket and had had presenting problems that existed for more than a year (Table Three). Distribution of types of presenting problems by age group of the 97-98 sample reveals that callers who were aged between 30 and 40 had significantly more presenting problems of depressed moods, sleeping disturbances and vocational problems (Table Six). Distribution of types of presenting problems by duration of problems, on the other hand, suggests that callers who had presenting problems that existed for more than a year had significantly more symptoms of anxieties, depressed moods and vocational problems
(Table Seven).

Table Six: Distribution of Types of Presenting Problems by Age of Callers of the 97 –98 Sample

Age	Anxiety Symptoms	** Depressed Moods	* Sleeping Disturbances	Vocational Problems	* Interpersonal Relationship Problen
20 or below	3.4% (7)	1.4% (3)	2.6% (2)	0.8% (1)	3.29% (7)
20-30	33.2% (68)	29.1% (60)	27.3% (21)	31.2% (40)	32.2% (70)
30-40	45.3% (93)	46.1% (95)	39% (30)	51.6% (66)	51.2% (111)
40-60	18% (37)	22.3% (46)	30% (23)	16.4% (21)	12.4% (27)
60 or over	0% (0)	1% (2)	1.3% (1)	0% (0)	0.9% (2)
N	205	206	77	128	217

(df = 4) *P>0.05, **P>0.01, ***P>0.001

Table Seven: Distribution of Types of Presenting Problems by Duration of Problems of Callers of the 97 – 98 Sample

Duration of Problems	** Anxiety Symptoms	* Depressed Moods	Sleeping Disturbances	* Vocational Problems	Interpersonal Relationship Problems
Less than 2 week	8.3% (17)	6.4% (13)	15.4% (12)	4.6% (10)	7% (9)
2 weeks – 1 month	8.3% (17)	7.9% (16)	12.8% (10)	7.9% (17)	11.8% (15)
1-3 months	24.3% (50)	11.4% (23)	12.8% (10)	14.4% (31)	15% (19)
3-6 months	8.3% (17)	11.9% (24)	5.1% (14)	11.1% (24)	8.7% (11)
6 months – 1 year	12.6% (26)	12.38% (25)	12.8% (10)	13% (28)	14.2% (18)
Over a year	38.3% (79)	50% (101)	41% (32)	49.1% (106)	43.3% (55)
N	206	202	78	216	127

(df = 5) *P>0.05, **P>0.01, ***P>0.001

Discussions

Findings in this study reveal that while the unemployed callers experienced more depressed moods, callers who were employed had more anxieties. There was also a link between vocational difficulties and anxieties found among unemployed men. Incidents of layoffs, bankruptcies and closing down of businesses in Hong Kong have certainly aroused a strong sense of job insecurity among those who are employed. Some individuals who are laid off may have to wait for months and even a year before they can find another job. Others may just have to have to experience long-term unemployment. It is therefore not surprising to find that this sample of callers expereinced depressed moods and anxieties. In fact, many studies have suggested that unwelcome life events that involve loss and threat were linked to the occurrence of depression and anxieties (Paykel & Priest, 1992, Turner, 1995). Specifically, unemployment was found to be related to depression and anxiety disorders (e.g. Hutchings & Gower, 1993).

These findings should set as a warning signal to the community, particularly among mental health professionals because, first, there may be a substantial number of individuals with symptoms or an established minor psychiatric illness who are living in the community without proper treatment. Secondly, it is also known that prolonged exposure to adverse psychosocial conditions without appropriate and early intervention may lead to the development and chronicity of minor psychiatric illnesses such as depression and anxieties disorders (Lester, 1999). Therefore, it is essential and pressing to introduce primary and secondary prevention programs to help the employed and unemployed persons in Hong Kong.

Findings also indicate that there was a substantial increase in the number of male callers to the telephone counseling service, and that vocational difficulties had aroused a great deal of anxieties among male callers. Traditionally, men are the breadwinners and have to provide financial support for their families (Ho, 1989). These deeply entrenched cultural expectations of men can become a stress factor for some adult males who are unemployed or are experiencing job insecurity. Moreover, there are far more males in the workforce than females and many men are the sole breadwinners in their families (Hong Kong Government, 1996). Therefore, unemployment or job insecurity can arouse a great deal of anxiety among some of these middle-aged men. The increase in the number of male callers to the phoneline certainly lends some support to the link between adverse life circumstances and poor mental health. These changing socio-economic conditions may also explain why there were more male callers in the 97-98 sample than the 95-96 sample.

This increase in the number of male callers is alarming and deserves much attention. Culturally and clinically speaking, Chinese men are less inclined to seek help from professionals for mental health problems than women (Ying & Miller, 1992). It is quite probable that they do so only when situations become rather serious. Remarks written in the record forms by workers indicated that some male callers were quite disturbed by their mental health problems and that some did require immediate psychiatric and/or psychosocial interventions. In view of this possible gender difference, it is important to find ways to address promptly the mental health needs of male callers.

Another worrisome finding is the time it took for callers to bring their mental health problems to the attention of the mental health professionals. Results show that about half of the callers had symptoms that existed for more than a year, and that they had not sought treatment elsewhere before contacting the phone line mental health social workers. This tendency to engage in passive help-seeking behaviors may be related to the issue of somatization of mental health problems among Chinese. According to Cheung (1995), somatization means the presence of one or more physical complaints that has no basis in no organic pathology or the physical complaints are grossly in excess of what would be expected from the physical findings. This tendency to somatize may be related to the ways in which Chinese people conceptualize the causation of mental illnesses such as depression and anxiety disorders. Traditional Chinese beliefs suggest that abnormal functioning of our internal organs are responsible for the occurrence of psychological and mental health problems (Lin, 1981). For example, abnormal functioning in the heart and small intestine and in lung and large intestine correspond respectively to the occurrence of depressed moods and anxieties (Lin, 1981). Therefore, Chinese people tend to look for biological causes to account for their mental health problems. Beside, social stigma of mental illness is so strong that Chinese people will try to exhaust all alternative explanations before acknowledging the fact that they have a genuine mental illness such as depression or anxiety disorder.

Recommendations

The Department of Health in Hong Kong is responsible for providing prevention services for the general public, including prevention in mental health. There are several characteristics that can be extracted from the types of prevention programmes being funded by the government. Many of these programmes are public education programmes that aim to help the general public to be more accepting of the presence of persons with mental illnesses in the community. Pamphlets are also made to impart basic knowledge on different types of mental illnesses. However, results of this study point to the needs to create more primary and secondary prevention programmes that can address the mental health needs of these at-risk groups of employed and unemployed persons in Hong Kong.

Primary prevention programmes:

Primary prevention programmes attempt to reduce the occurrence of a disorder. These programmes generally target at the general population rather than at a personal level. The objectives are to raise the overall awareness of mental health issues within a community, and put issues on the 'agenda for public discussion' (Hornblow, 1986). Moreover, these programmes may also help to identify those who are at-risk of developing mental health problems.

The use of a mental health telephone hotline and counseling service is a useful primary prevention strategy in fostering better mental health among the general population. There are several obvious advantages for using a mental health phoneline to identify the mental health needs of the general public. First, callers can access the phoneline easily. Secondly, they can remain anonymous and have more control over the process of the interview. Thirdly, the service is less threatening to callers who are unfamiliar with the services. Indeed, this phoneline may counteract the cultural issues of passive help-seeking behaviors, particularly of men, and of social stigma. At present, there is only one agency that offers taped information about stress, mental illness, psychiatric and social services to the general public. Those who want to seek more specific information can speak directly with the telephone counselor who is on duty. However, at present, there is only one service in Hong Kong which offers a very limited information hotline on mental health issues, and the service is funded by an agency through funding raising activities. The government has not yet recognized the functions of this type of prevention services. In view of the popularity and proven usefulness of a telephone hotline and counseling service in other countries and in Hong Kong (e.g. Lynch et. al, 1997, and Wong, 1996), the Hong Kong government should consider providing funding for the establishment of this telephone hotline service.

Another possible primary prevention program could target general practitioners working in the public and private clinics in the community. Since Chinese people have the tendency to somatize their mental health problems, they probably visit their doctors frequently. Therefore, it is useful to educate general practitioners in the clinics to identify individuals who may have genuine minor psychiatric illnesses that have gone undetected. Indeed, this is an important strategy because "the low rate of reporting on emotional features may thus be a reflection of the insensitivity of the health professionals, especially those in general practice who may not be aware of the concomitant psychological aspects (Cheung, 1995, p. 160). Seminars and pamphlets about cultural issues of somatization and passive help-seeking behaviors, and training in identifying and communicating with persons with possible minor psychiatric illness can be organized for general practitioners working in the government and private clinics. This set of prevention strategies has been used with success in other countries. For example, Roterr and Hall (1991) has found that training programmes for general practitioners were effective in increasing detection of psychological difficulties and in providing more relevant advice to patients.

A third possible primary prevention strategy is the use of mass media and new technologies to disseminate information on mental health and mental illness to the general public. With the ever-growing popularity of these mediums, social workers must try to use these mediums to promote public awareness of mental illness and mental health. For example, it is now quite fashionable to create internet website or homepage for a social service agency. In the homepage, mental health agencies can display information on mental illness, mental health and psychiatric and social services available in Hong Kong. Moreover, it can answer individual enquiries about personal mental health concerns through e-mails or ICQ. Besides internet, agencies can also consider creating video CDs on information about mental health and mental illness.

Secondary Prevention Programmes

Secondary prevention programmes attempt to identify and treat as early as possible so as to reduce the length and severity of a disorder (Hornblow, 1986). In other words, this type of programs aims to help individuals who have symptoms of or a fully developed mental illness such as depression or anxiety disorder to resolve their mental health problems before these problems or illnesses develop into chronic conditions. One major type of secondary prevention programmes that can fulfil these objectives is counseling services. On the one hand, counseling services perform valuable listening, information giving and referral roles. On the other hand, counseling services can help the individuals resolve their psychosocial difficulties that have been linked to the occurrence of mental health problems. Yet, an added value of these counseling services is their possibility in reducing the long-term cost incurred in rehabilitating individuals with chronic minor psychiatric illnesses. These counseling services can be in the forms of face-to-face, or telephone, and individual or group counseling. Many mental health counseling services, in fact, have been found to be effective in helping people with mental illnesses such as depression and anxiety disorders (Hornblow, 1986, Bright et. al, 1999). They can also prevent some people from being admitted into the hospitals or develop into chronic mental illnesses.

At present, there are inadequate secondary prevention programs in the community in Hong Kong, particularly mental health counseling services. As mentioned, psychiatric services in Hong Kong are mainly rehabilitative in nature and cater to the psychiatric needs of those who have already been diagnosed as persons with severe mental illnesses. There are very few counseling services addressing the mental health needs of those who have symptoms of minor psychiatric illnesses, but who do not need immediate inpatient or outpatient medical treatment. These individuals will certainly benefit from in-depth individual and group counseling to help them deal with their mental health problems. The lack of funding support from the Hong Kong government certainly accounts for this inadequacy. Indeed, the government should provide funding for mental health service agencies to establish a mental health counseling team to address the needs of those with minor psychiatric illnesses. The team can provide assessment and individual and group counseling for persons who are at risk or have developed minor psychiatric illnesses.

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