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The Efficacy of Intensive Case Management for a Concurrently Disordered Population

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Abstract

The Northwestern Ontario Concurrent Disorders Program (NOCDP) offers a multidisciplinary, assertive community treatment approach to clients with concurrent disorders, substance dependence and co-morbid severe and persistent Axis I and/or Axis II disorder. Substance use in a psychiatric population lessens the effectiveness of treatment, increases the symptom severity of the mental illness, and leads to less successful treatment outcomes. Accordingly, these individuals need programming tailored specifically to their psychopathology, substance(s) of choice, and social supports. The present research examines the population that NOCDP serves, and the effectiveness of its programming. Client symptom reporting, reported impact of substance use, number of hospitalizations, legal activity, residential status, education/employment activity and income level are used as measures of treatment success. While improvements within groups were indicated on some measures, significant differences between groups were not found. Level of functioning of NOCDP clients did improve over time, but interpretation of the data was complicated by design limitations related to the naturalistic nature of the study.

The Efficacy of Intensive Case Management for a Concurrently Disordered Population

Twenty percent of people with psychiatric conditions have a single Axis I or II diagnosis. Almost 80% exist in tandem with at least one other psychiatric disorder (Kessler, 1995). In the general population, 15 to 30 percent have a substance use disorder, and 19 to 30 percent, a psychiatric disorder (First & Gladis, 1993). Coexistence rates for psychiatric and substance use disorders have been reported to range from 20% (Greenfield, Weiss, & Tohen, 1995) to 75% (Toner, Shugar, Campbell, & DiGasbarro, 1991). These coexistence rates are as much as three times as high as either a single substance use or psychiatric disorder. Clearly there is a high correlation between substance use disorders and other Axis I and Axis II disorders.

Individuals with co-morbid substance use disorder and another mental illness are herein referred to as, concurrently disordered. Another term frequently used to describe this population is dually diagnosed. This term can be misleading in that it implies the individual has only two diagnoses. In fact, the target population in this study most often have multiple diagnoses beyond a substance disorder. Indeed, the program statistics show that for those clients who have only one diagnosis beyond a substance disorder, that diagnosis is usually a major psychotic disorder. It should be noted that all clients of the program have a substance use disorder as an entry criterion.

Northwestern Ontario Concurrent Disorders Program (NOCDP) is an outpatient program designed to meet the needs of individuals who have

concurrent diagnoses. In order to be participants of the program, clients must

suffer from both a severe psychiatric disorder and a substance use disorder.

Regier, Farmer, Rae, Locke, Keith, Judd, & Goodwin (1990) report in their study

that 29 percent of individuals who have a psychiatric diagnosis, also have a

substance abuse disorder. Of those who have substance use disorders and are in

treatment, prevalence rates for mental disorders are 37% among alcohol users,

and 29% among those who use substances other than alcohol. Prevalence rates of

alcohol and drug abuse-dependence in the general population are estimated to be

at 22.5% and 6.1%. Reasons for high rates of substance abuse among the

mentally ill are varied. Many use alcohol and other drugs for symptom

management. The prognosis for concurrently disordered individuals tends to be

poor. Without treatment, it has been found that this population tends to suffer the

following effects:

- worsening of psychiatric symptoms (Ridgely, Goldman, &

  Willenbring, 1990; Ries & Ellingson, 1990),

- more antisocial behaviours such as aggression (Drake & Wallach,

  1989; Howland, 1990; Mueser, Drake & Miles, 1996; Miller,

  1991; Ridgely, Goldman & Willenbring, 1990),

- increased suicidal behaviour (Drake & Wallach, 1989; Howland,

  1990; Ridgely, Goldman & Willenbring, 1990; Mueser, Drake &

  Miles, 1996; Ries & Ellingson, 1990),

- more illegal activity (Lyons & McGovern, 1989; Safer, 1987),

- frequent relapses of both psychiatric illness and substance abuse (Ridgely, Goldman & Willenbring, 1990),

- increased number of hospitalizations (Cuffel, 1996; Drake & Wallach, 1989; Lyons & McGovern, 1989; Mueser, Drake & Miles, 1996; Ridgely, Goldman & Willenbring, 1990; Ries & Miller, 1993; Safer, 1987),

- premature discharges from hospital (Lyons & McGovern, 1989; Ridgely, Goldman & Willenbring, 1990),

- more days spent in hospital over time (Lyons & McGovern, 1989),

- poor psychosocial adjustment (Drake, Mueser, Clark, & Wallach, 1996),

- more trouble keeping jobs (Clark & McClanahan, 1998),

- trouble keeping stable housing (Clark & McClanahan, 1998; Drake, Mueser, Clark, & Wallach, 1996; Drake & Wallach, 1989; Mueser, Drake, & Miles, 1996),

- less treatment compliance (Clark & McClanahan, 1998; Drake & Wallach, 1989; Lyons & McGovern, 1989; Mueser, Drake, & Miles, 1996; Miller, 1991; Ries & Miller, 1993; Safer, 1987),

- increased burden on family members (Mueser, Drake, & Miles, 1996).

Clearly, it is essential that treatment for this population takes a holistic approach. Where the client has inadequate nutrition and housing, or where family or social

context is not conducive to change, the prognosis remains guarded. Treatment for this population must consider these realities.

The concurrently disordered population does not fit easily into traditional substance abuse programs. One reason is differing program mandates between substance abuse and mental health programs. Addiction programs frequently screen out clients with a mental illness, while psychiatric programs traditionally screen out those who are not abstinent or drug free. Addiction programs that do accept clients with a psychiatric disorder, often require that the individual be mentally stable and abstinent upon program entry. Stabilization, for the most severely mentally ill, can be a challenge as medications seldom eliminate all symptoms of the disorder, and finding the optimal pharmacotherapy is difficult in the context of an active addiction. Frequently, inpatient programs demand abstinence from substances as a criterion for entering the program. This can be a problem for someone who is mentally unstable and may be using the substances for symptom management or to cope with side effects of medications. Many programs require that clients refrain from using psychotropic medication for entry and tenure in the program. Without medication, these clients may become too unstable to remain, and they are at high risk for relapse and hospitalization. These criteria are too challenging for most concurrently disordered individuals. Additionally, the psychiatrically disabled are a highly stigmatized and marginalized group that often does not have the financial, social, and family supports that their mainstream counterparts enjoy.

Traditional substance use programs tend to do much of their work in groups. Many concurrently disordered individuals, particularly those who suffer from psychotic disorders, have tremendous difficulty working in groups because they do not trust others due to paranoia, they may act or speak inappropriately, or socially miscue and alienate other group members.

Lastly, addictions counsellors frequently have little or no training in working with individuals with mental health issues other than addictions. They frequently lack the skills or experience required to assess and address issues pertaining to persons with various mental disorders, and the skills to cope with working with this population. At best, they may take a "cookbook approach" to treatment. Typically, all clients, regardless of special needs are channelled through a pre-designed program. The treatment approach is geared to the common denominator of needs related to addiction without reference to clients' other special needs. If the client with concurrent disorders does not survive this form of treatment, then there are seldom options available to assist them with their special needs.

Conversely, mental health experts frequently have little expertise in working with individuals with addictions. They may lack understanding regarding the subtleties of addiction, which sometimes mimic psychiatric disorders, and the symptoms of withdrawal. They are less apt to be aware of, or sensitive to, the psychological barriers and social pressures that keep an individual from being able to control intake or remain abstinent. Clients seeking psychiatric treatment

are often advised to address their addiction problems first and return once they have been abstinent for 3 months or longer.

The Program

NOCDP is a multidisciplinary team whose staff tailors treatment to meet the bio/psychosocial needs of each client. The team generally consists of two social workers, two recreationists, four nurses, a psychometrist, psychiatrist, program coordinator, secretary and program assistant. The team works collaboratively, sharing expertise as well as client caseload, resulting in cross training of staff. The social workers, recreationists, and nurses each maintain a caseload of 10-12 clients and are referred to as case managers. This program maximizes client service delivery while maintaining continuity of care. While each case manager is the primary contact for their client, clients are frequently given opportunities to interact with other team members. As a result, clients have access to professionals from various disciplines that they know and with whom they can feel at ease. Case managers spend much of their time in the community in the client's environment, assisting in multiple aspects of care. This care may include support regarding medication compliance or other activities of daily living, family support, individual and/or group therapy, legal problems, psychoeducation and health education, as well as integration of service delivery. In summary, case managers act as a support to the client for any clinical or psychosocial need. As much as possible, the client's needs are met by the skills of the team.

The goal of intensive community treatment is to help the client attain and maintain independent, quality living in the community. It accomplishes this by focusing on client choice, empowerment, and development of skills and supports. This form of service delivery has been found to be effective in treating the severely mentally ill by reducing number of hospitalizations (Health Systems Research Unit, Clarke Institute of Psychiatry, 1997; Jerrell & Ridgely, 1995a; McGrew, Bond, Dietzen, McKasson, & Miller, 1995; Santos, Deci, Lachance, Dias, Sloop, Hiers & Bevilacqua, 1993; Wood & Anderson, 1994), lessening the severity and number of psychiatric symptoms (Health Systems Research Unit, Clarke Institute of Psychiatry, 1997; Jerrell, 1995; Jerrell & Ridgely, 1995a,b), improving level of functioning (Aberg-Wistedt, Cressell, Lidberg, Liljenberg & Osby, 1995; Health Systems Research Unit, Clarke Institute of Psychiatry, 1997; Lightfoot, Rosenbaum & Ogurzsoff, 1982; McGrew, Bond, Dietzen, McKasson & Miller, 1995), reducing amount of illegal activity and increasing treatment compliance (Jerrell & Ridgely, 1995a) and reducing the burden of client care by family members and other supports (Aberg-Wistedt, Cressell, Lidberg, Liljenberg & Osby, 1995).

Because NOCDP works with a concurrently disordered population, treatment necessarily must address issues relevant to both the mental illness and substance abuse. With this comes a philosophy of harm reduction. While abstinence is an ideal, it is not a pre-requisite for entry or program tenure. Instead, clients are encouraged to prioritize their goals and evaluate the impact of their behaviour on their health and quality of life. They are assisted to implement

insight-developing strategies and make changes that will reduce the likelihood of harm due to substance abuse or mental illness.

The focus of NOCDP is the client. Goals include harm reduction or control of psychiatric symptoms, harm reduction around substance abuse, and successful adaptation to community living. Program success is measured by a reduction in number and length of hospitalizations and quality of life indicators such as, stabilized housing, reduction of illegal activity, reduced psychiatric symptom severity, and a reduction in, or abstinence from substance use. When clients enter the program, care is taken to match them suitably with a case manager with sensitivity to gender issues. While some clients require intensive case management, for example, long term and daily contact, others reach a point where level of care intensity can be reduced significantly. Still others enter with fewer needs initially or may decline intensive involvement. The program follows these clients in accordance to their needs. At program entry, a treatment plan is developed in consultation with the client and other team members. Recognition is given to the changing needs of the client, so treatment goals and progress are reviewed on an ongoing basis with the client in monthly team conferences. All clients have regularly scheduled appointments with the team psychiatrist.

NOCDP clients fall into one of two program categories: the intensively case managed (CM), and the not-otherwise-specified (NOS). The case managed group are provided with intensive interaction with their case manager. Interactions are usually face-to-face, and occur in the community, or client's environment. At program entry, these clients have a high level of symptom

severity, and it is recognized they would likely benefit from frequent contact. Attempts are made by the case manager to maintain regular, often daily, contact with these clients. These clients are given opportunities to interact with the entire team on a regular basis through group work and recreational activities. As a result of the group and recreational involvement, these clients also have occasion to interact with other program clients. This affords them the opportunity to build new relationships with others in similar circumstances to their own. At the beginning of each day, case managers review their plans for the day, including the clients they will be seeing, and for what purpose. They may highlight the previous day's activities when there are clinical concerns and need for team consultation. Because of the complexity of client problems, the team members regularly discuss clinical issues and dilemmas. As a result, all the case managers have detailed understanding of all of the program clients and their clinical issues. This allows for more meaningful interactions between these clients and any other team member, which in turn, allows for continuity of care for the client. Case managed clients are also conferenced monthly in consultation with the entire team. The five DSM-IV axes (American Psychiatric Association [APA], 1994) are reviewed, as are client goals, problem areas, and other treatment issues.

The second group being studied is the NOS client group. This group includes clients who are seen and treated by the psychiatrist and who have contact with only one other staff team member. While these clients meet the same criteria for program entry, they generally have less severe, or more easily managed symptomatology, and are therefore placed in the NOS group. The exception to

this is the client who is recommended for intense case management, but chooses

NOS because it has less program involvement. These clients also have case

managers, but they tend to have less contact with them, sometimes only once or

twice every two weeks. Contact is frequently done by phone or in the case

manager's office. Unlike many of the intensely case managed group, these clients

are generally well enough to come to the program for most of their appointments

rather than have the case managers come to them. These clients seldom interact

with other team members and have little opportunity for peer interaction with

other NOCDP clients as they attend few groups or recreational events. Since these

clients are seen less frequently, they are discussed less in morning meetings, and

other team members know less about their daily activities. These clients are also

conferenced less frequently (usually once every two months) and conferenced

with only four program staff rather than the entire team. Because these clients

usually require less support, their lives tend to be more independent, unlike the

case managed clients who tend to receive more assistance around daily living.

While intensely case managed clients may receive help to make and keep

community appointments, support with recreational activity, medication

adherence, and general support in daily living, NOS clients are left more on their

own. While case managers are available for NOS clients in times of need, they

are not accessed as frequently. Because of the daily contact with case managed

clients, early crisis intervention is possible, sometimes averting crises before they

fully blossom. While the case managed and NOS clients receive basically the

same services, those in the case managed group have greater and more frequent

access to the services, specifically, more involvement with their case managers,

and more interaction with other team members and clients in recreational and

other group activities.

Both case managed and NOS groups were examined in this study,

however, a third group was also examined, the waiting list for program entry.

When an individual is referred to NOCDP, they see one of the team social

workers for an assessment. Based on this assessment, and in consultation with the

psychiatrist, a diagnosis is given (when appropriate), and recommendations for

treatment are made. Treatment suggestions may include medication,

psychotherapy, psychological, medical, or other testing, entry to a specific

treatment program, or entry to NOCDP to see the team psychiatrist. If the latter is

recommended, the client is added to the program's waiting list. Criteria for

getting on the waiting list are a diagnosis of severe psychopathology, and

substance abuse or dependence. At the time of assessment, the client must also

meet one of the following criteria: (1) be unsuitable for treatment at a community

facility, or (2) have needs that require the specialized care of an addiction

psychiatrist and the regular contact of a case manager. Because clients are

infrequently discharged from NOCDP, client turnover is slow and being on the

waiting list may mean an extended wait before entry. Often these clients seek or

are recommended for treatment at other facilities while waiting to get into

NOCDP. The waiting list group served to control for the effects of time and the

two types of treatment interventions. Because of their clinical similarity and

symptom severity, they served as a comparison group for clients in NOS and case

managed treatment. Specific demographic information may be found in the results section.

Using the data gathered in NOCDP records, and conducting a careful examination of predictor and outcome variables, it is hypothesized program effectiveness will be as follows: intensely case managed clients have better outcomes than those who are NOS, and that both groups fare better than those on the waiting list.

Methodology

<u>Participants</u>

In September 1999 there were 106 clients registered in NOCDP, of which 51 were male and 55 female. Almost 80% were between the ages of 25 and 55, with the bulk in the 35 to 44-age range. Aboriginals made up slightly less than 20% of the group. The majority of the population (79%) used alcohol, but of those, most used alcohol along with another substance. Rarely, however, in any age group has it been observed in the past that individual clients abused a single substance. They frequently had a substance of choice, but often used or met the DSM-IV dependence criteria for at least one other substance.

Initially, the study sample consisted of 63 intensely case managed clients and 19 NOS clients. Thirty-four clients from the program's waiting list were included in the study to act as a control group. Clients who are placed on the waiting list meet the criteria for program admission to either the intensely case managed or NOS group. All waiting list clients involved in this study have been on the list for between five and eighteen months. Of the case managed clients, all

participated in the study except one, who moved, leaving the group with 62

participants. Of those 62, eleven were unable to participate fully for various

reasons: refusal to participate, relocation, incarceration, illness, and whereabouts

unknown. Sixteen of the nineteen clients in the NOS group were included. Those

who were not included, were either too ill or had whereabouts unknown. Of the

34 clients who were on the waiting list, only 19 participated. Reasons for non-

participation included: incarceration, illness, relocation, and whereabouts

unknown (Table 1). Whereabouts unknown could be interpreted as a move, living

on the street or in a shelter, in hospital, or deceased. In each case, no one who

normally had contact with the client knew their whereabouts at the time of this

study.

Measures

In 1996, the NOCDP team made efforts to set up client documentation in

such a way that individual progress could be easily monitored. This was the

motivating force behind weekly team conferences in which, over the course of a

month, each client is reviewed by the entire team. The documentation

demonstrated client improvement or regression. As clients improved, there was a

paper trail to document their improvement. As the team saw the need to further

evaluate client change by measuring items such as psychiatric symptom severity,

and the consequences of substance use on the life of the client, these variables

were also examined. This produced data, allowing each client to be assessed on

an individual basis, and eventually, in comparison to other clients. Early in 1998

efforts were made to gather such data using two instruments, the Symptom

Checklist-90-Revised (SCL-90-R) (Derogatis, 1983) and the Inventory of Drug

Use Consequences (InDUC) (Miller & Tonigan, 1995). Early 1999 saw the

addition of the Psychosocial Rehabilitation (PSR) Toolkit (International

Association of Psychosocial Rehabilitation Services, 1995). Clients involved

were those who were intensely case managed, the NOS group, as well as the

waiting list group. Following, is an account of how the information was gathered.

Psychosocial Rehabilitation Toolkit (PSR)

The Psychosocial Rehabilitation Toolkit was developed by the

International Association of Psychosocial Rehabilitation Services (1995) and was

later revised by the Ontario Federation of Community Mental Health and

Addiction Programs for use in Canada. It was developed to measure psychosocial

rehabilitation outcomes. Some minor modifications were made to the PSR to

make it more appropriate for use with the NOCDP clientele. Questions regarding

language preference were deleted, as were any questions inquiring about

victimization of the client. Added, were questions about history of head injury,

people in the client's living environment, and enrolment in a forensics program.

In addition, space to enter information about Axes III, IV, and V was included.

The modified version of the PSR used in this study can be found in Appendix A.

A baseline was established to document client improvement using

information from their initial contact with the program. In most cases, this was

when an assessment was completed by a team social worker. Information was

extracted from casebooks, and interviews with clients. Demographic data, clinical

information, and domains such as legal status, residential status, education,

employment and income were gathered on all clients for the year previous to the first contact, as well as current status, based on the past year. The PSR also includes a client life-satisfaction survey, which consists of three subscales that reflect mastery (items 1, 8, 9 and 16), quality of life (items 2, 6, 11, 12, 13, 18 and 19), and program satisfaction (items 3, 4, 5, 7, 10, 14, 15, 17 and 20). PSRs were conducted retrospectively on all case managed, NOS, and waiting list clients. The PSR was used to gather information at two points in time: (1) a baseline was done at initial contact with the program, usually at the time of the initial assessment, and (2) a current level of functioning was conducted if the client had been registered in the program or on the waiting list for more than one year. Baseline PSRs were done retrospectively with CM and NOS clients who had been enrolled in the program for at least one year. Data for these PSRs were completed for the year prior to the client's initial assessment. The client, with the aid of the case manager, attempted to remember all relevant data. When necessary, hospital records were obtained to confirm hospitalizations. Current PSRs required the client to answer ail questions regarding the past year. For those on the WL, the process was similar. Those on the WL for more than one year were asked to complete the PSR retrospectively. Those who had their initial assessment during the data-gathering period simply answered all questions about the past year. In some cases, diagnoses changed from baseline to current status. This is not uncommon in this population, and reflects the complexity of diagnostics with this group due to substance use. In such cases, the more current diagnoses were used.

Clients who had initial contact with the program earlier than May 1999, had their

PSRs completed retrospectively.

Symptom Checklist 90 Revised (SCL-90-R)

All clients were given self-report questionnaires to assess current

psychiatric severity using the Symptom Checklist (SCL-90-R). The SCL-90-R is

a self-report inventory, which measures psychological symptoms and reflects

symptom patterns. The inventory consists of 90 items, each item rated on a five-

point scale of distress ranging from "Not at All" to "Extremely." A total of nine

symptoms are evaluated including: Somatization, Obsessive-Compulsive,

Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety,

Paranoid Ideation, and Psychoticism. There are also three indices of symptom

severity: Global Severity Index, Positive Symptom Distress Index, and Positive

Symptom Total. The SCL-90-R has been well established as a tool to measure

treatment outcomes by monitoring psychological symptoms and symptom

severity over time (DeSoto, O'Donnell, Allred, & Lopes, 1985; Edwards, Yarvis,

Mueller, Zingale, & Wagman, 1978). The SCL-90-R may be found in Appendix

B.

Inventory of Drug Use Consequences (InDUC)

Problems related to substance use were assessed by measuring the effects

of substance use on the client's life using the Inventory of Drug Use

Consequences (InDUC). This is a self-report instrument developed by the

National Institute on Alcohol Abuse and Alcoholism (NIAAA) for its treatment-

matching program called "Project MATCH" (U.S. Department of Health and

Human Services, 1995). It measures the impact of substance use over the last

three months of the client's life (see Appendix C). Many NOCDP clients use and

are addicted to many substances at a time, and they may reduce or stop using one

substance only to substitute it with another. Therefore, a measure of substance use

for this program necessarily had to measure various factors affected by the

individual's substance use such as physical effects, inter/intrapersonal effect,

level of impulse control and social responsibility. Such variables give some

indication of deterioration or improvement around the substance use. Like the

SCL-90-R, all case managed, NOS and waiting list clients were asked to

complete the InDUC as a current measure. A summary of tests, groups that

received them, and points in time in which they were administered are presented

in Table 2.

Results

Chi-square, a measure of the deviation of observed frequencies from

expected frequencies, indicated cell values for demographic information differ

between the three groups in most areas (Table 3). Deviations were found in the

area of gender $x^2 (2) = 8.22$, $p < .05$. Gender was almost equally divided within

each of the CM and NOS categories, however, WL contained a disproportionate

number of males to females with a ratio of 15:4 (Table 4).

At baseline, more of the WL group lived in undesirable housing than

members of either of the other two groups $x^2 (4) = 12.29$, $p < .05$ (Table 5).

Undesirable housing would include a boarding house, hostel, shelter, street living,

or no fixed address.

NOS clients were most likely to be living in a family situation $x^2(4) =$ 10.57 $p < .05$ (Table 6). The CM and WL groups had higher incidences of living alone than the NOS, and the NOS group had the highest rate of cohabitating with a significant other (31 percent). (The WL group had the highest rate of separation and divorce, at 47 percent as found in Table 7.)

The CM group had the highest rate of unemployment at both baseline $x^2(8) = 16.44$, $p < .05$ (Table 8) and currently $x^2(8) = 17.40$, $p < .05$ (Table 9). The CM group's rate of unemployment was even greater currently than at baseline.

While differences in hospital admissions at baseline were marginally significant $x^2(2) = 5.83$, $p = .054$, they did demonstrate a trend whereby the WL group had more hospital admissions than either the CM or NOS groups, with NOS having the least. This trend continued at current measures, but was found to have become even stronger. The gap between the high number of hospital admissions for the WL group and low number for the NOS widened significantly $x^2(2) = 16.37$, $p < .001$ (Table 10).

At baseline, CM, NOS and WL groups had fairly similar numbers of involuntary hospital admissions $x^2(2) = 2.39$, $p > .05$. At current measures, CM group had a similar number of involuntary admissions when compared to their baseline numbers. The NOS dropped to no involuntary admissions, and WL admissions rose (Table 11). An examination of current involuntary hospitalisations revealed significant group differences with the WL group having more involuntary admissions than either of the other two groups $x^2(2) = 13.35$, $p < .001$.

Comparisons of Axis IV characteristics were made between the CM and NOS groups, based on the number of clients who had an Axis IV condition. (The WL group was excluded from these comparisons due to insufficient data.) This was done by tabulating the presence or absence of any problem in Axis IV functioning in the two groups. This analysis was not significant, $x^2(1) = .05, p > .05$. An examination of this Axis identified social interaction as the most common problem area for both groups. Social interaction may include social environment or social activity. Economic problems, trouble with primary support group, and occupational problems were also noted as psychosocial and environmental problems. Other problems were found in the areas of housing, legal, education, lack of meaningful activity, and other areas not categorized (Table 12).

Substance of choice for all groups was alcohol although few had a diagnosis of only alcohol dependence. While Table 4 reflects the percentage of individuals who had alcohol dependence as a primary substance diagnosis, Table 13 displays all problem substances. This table includes, but is not limited to, the primary substance diagnosis. Individuals who used alcohol-containing substances such as Aqua Velva, Listerine, and vanilla were counted under the "alcohol" category. Other substance dependent categories included cannabis (n = 7, 7.2%), cocaine (n = 4, 4.1%), nicotine (n = 1, 1%), opiods (n = 7, 7.2%), sedatives (n = 5, 5.2%), polysubstances (n = 1, 1%), and other (n = 2, 2.1%). "Other" included substances such as antihistamines, and Gravol. Nicotine dependence was reported only when the addiction had physical effects beyond normal, as is an individual with chronic emphysema.

Mood disorders dominated as the most common Axis I diagnosis beyond substance in all groups. (Table 14). This in itself is misleading in that only 5% of clients with a mood disorder as a primary diagnosis (in the CM group) had only one diagnosis beyond substance abuse. The rate is higher for the NOS group at 19% who had only one Axis I disorder beyond substance use. Since most of the WL group had not yet received diagnoses, numbers are not available for them at this time. The most commonly occurring Axis II diagnosis was Borderline Personality Disorder, although the majority had no Axis II diagnosis at all or a deferred diagnosis. A diagnosis of "deferred" is normally given on Axis II when it is suspected a client may have an Axis II disorder but a clear clinical picture is not apparent, often due to substance use.

All NOCDP clients are given a Global Assessment of Functioning (GAF) score that is reviewed monthly. GAF scores reported here represent scores taken from two points of time: baseline and current. Baseline scores are those the client had at program entry. Current scores represent the most recent scores clients had at the time of this study. WL clients did not have a GAF score, as staff were not adequately familiar with their level of functioning. A GAF less than or equal to 20 represents a danger to self or others, less than or equal to 50 indicates serious impairment in functioning, between 51 and 60 moderate impairment, and over 60, mild functional impairment. As indicated in baseline scores on Table 15, the CM group has a higher percentage of clients with serious impairment, while the NOS group overall functions at a higher level. While baseline means are not remarkably different between the groups at baseline, there is a notable difference

in categorization. Forty-two percent of CM have a GAF less than or equal to 20, while only seventeen percent of the NOS group are in this category.

A two-way repeated measures ANOVA (groups by baseline and current) on GAF scores revealed both groups, when examined as a whole, experienced significant changes over time $F = 116.0$, $p < .01$. Comparisons between the CM and NOS groups were almost significant $F = 3.89$, $p = .053$. However, an analysis examining possible differential changes over time between the groups was not significant $F = .661$, $p > .05$. Figures 1 and 2 plot the changes of GAF scores over time for the two groups. Overall then, this analysis indicates that there was a marginally significant difference in severity between the two groups. Further, both demonstrated very significant change in GAF functioning over time. However, the two groups did not differ in their rate of change. As a result, rates of improvement of the two groups were virtually parallel (Figure 3). Change was only significant when both groups were examined as a whole.

A series of 3 (group) x 2 (time) mixed analyses of variance (ANOVA) were conducted on income, hospital admissions, and length of stay in hospital. These analyses were performed on all three groups. For all of these variables, none of the group, time, or group by time interactions were significant. (All Fs < 2.44, $p > .05$.) However, a significant main group effect was found for number of jobs $F(2, 91) = 3.36$, $p < .05$ (Table 16). The Bonferroni correction was used to correct the nominal significance level of $p < .05$ to account for the use of multiple analyses with the aforementioned PSR category. The resulting criterion for

significance used was $p < .04$. The CM held far fewer jobs than the NOS group, and less than the WL group on both occasions (Figures 4 & 5).

One-way ANOVAs of the current SCL-90-R (Figure 6) showed significant differences between groups in Somatization $F_{(2,76)} = 4.59$ $p < .05$, Obsessive Compulsive behaviour $F_{(2,76)} = 3.58$ $p < .05$, Interpersonal Sensitivity $F_{(2,76)} = 1.05$ $p < .05$, Anxiety $F_{(2,76)} = 4.15$ $p < .05$, Hostility $F_{(2,76)} = 3.96$ $p < .05$, Paranoia $F_{(2,76)} = 4.05$ $p < .05$, Psychoticism $F_{(2,76)} = 5.77$ $p < .05$, Global Severity of symptoms $F_{(2,76)} = 4.13$ $p < .05$, and Positive Symptom Total $F_{(2,76)} = 5.50$ $p < .05$. Bonferroni post hocs indicate that the WL reported a greater number of symptoms on all these scales in comparison to the CM group. While the NOS group reported more symptoms than the CM group, these differences were not significant. No significant group differences were found on the following scales: Depression $F_{(2, 76)} = 1.82$, $p > .05$, Phobic Anxiety $F_{(2, 76)} = 2.85$, $p > .05$, or the Positive Symptom Distress Index $F_{(2, 76)} = 1.63$, $p > .05$.

The InDUC showed significant results in all categories at $p < .05$. The WL group reported many more consequences related to drug/alcohol use than either the CM or NOS groups. Significant differences were found between the case managed and wait list groups for both the SCL-90-R and the InDUC (Figure 7).

In summary, no significant effects were found for number of hospitalizations, length of stay in hospital, Depression, Phobic Anxiety, or the Positive Symptom Distress Index. Significant effects were found for number of jobs, Somatization, Obsessive Compulsive behaviour, Interpersonal Sensitivity,

Anxiety, Hostility, Paranoia Psychoticism, Global Severity of symptoms and

Positive Symptom Total, and all InDUC scales. The Bonferroni correction was

used for post hoc comparisons with a significance set at the .05 level.

Correlational Data

SCL-90-R and InDUC

Additional Correlational analyses were conducted to further examine

treatment effects. Without consideration for group membership, Pearson Product-

Moment Correlation Coefficients were computed for the SCL-90-R. Correlations

reflect the effects between the number of months in treatment and a variety of

measures of symptom severity. It would seem that as the number of treatment

months increase, the number of symptoms, and intensity of symptoms, as

reported on the SCL-90-R, decreases. Results are presented on Table 17.

An analogous investigation on the InDUC yielded similar results.

Correlations revealed that as treatment months increase, InDUC scores decrease

on all scales (Table 18). However, when analysed by group, it became apparent

that the significant InDUC correlations were primarily a product of moderate

levels of treatment association found in the CM group. This suggests that the

longer a CM client was in treatment, the greater the reduction in negative

consequences of substance use. Related analyses of the NOS and WL groups did

not yield similar results. It would appear that the NOS and WL groups continued

to experience as many negative consequences related to their substance use.

<u>Supplementary Psychometric Analyses</u>

Reliabilities were run on survey items from the PSR. Item analysis

revealed a few items with poor item correlations. In the domain of mastery,

question 1, "If I were given the opportunity I am sure I could work." did not

correlate well with other measures of mastery for this population. In the quality of

life area, item 19, "I am in good physical health." did not perform well. Item

number 17 "I believe that together with others I can influence the mental health

social service system." did not measure program satisfaction as reliably as other

items from this category. Survey reliabilities are displayed in greater detail in

Table 19.

Discussion

The initial hypothesis that predicted treatment would result in better

outcomes for the CM group than the NOS group, and that both would fare better

than the WL group was difficult to test. Aside from the unequal distribution of

participants in each of the groups, the three groups were not functioning at similar

levels at baseline. The WL and CM groups both had poorer levels of overall

functioning than the NOS group. This was indicated by the lower levels of GAF

functioning found the CM group, and less employment in the CM and WL

groups. Additionally, the NOS group had less room for improvement, as they

were not as ill as the CM at program entry.

Careful examination of the three groups studied, revealed other

differences between each of the groups. The WL group as a whole was found to

be very transient, difficult to locate, and residing in the least desirable housing.

As a result, only 56% participated in the study. Of those who did, clinical

information was difficult to collect as most had either never been in treatment or

had not been in treatment long enough to ascertain a diagnosis. In addition, those

clients with more severe psychiatric symptomatology, and with impaired

independent living skills were assigned to the CM program. Those with less

severe symptoms, and who had a higher level of functioning in the community,

were generally assigned to NOS.

Chi-square analyses indicated deviations from expected frequencies on

several variables, including gender, Axis IV features, living environment,

employment status, hospitalisations, and employment. Regarding the PSR

variables, the only significant variable was employment status. Further analyses

indicated that while cell counts were not equal on other PSR variables, for the

most part, there were no significant differences. There may be several factors

affecting the lack of significant results expected, as discussed above.

Other statistical analyses of the differences between the CM and NOS

groups also revealed generally more favourable conditions for the NOS group.

This was evident in the marginally significant differences in the GAF scores.

Based on GAF scores, there was a suggestion that the CM group had more severe

symptoms at program entry than the NOS group. This trend continued through to

current measures. However, both the CM and NOS groups improved at nearly

equal rates.

Other findings suggest differences between CM and NOS groups

regarding psychiatric symptom severity and intensity (SCL-90) and duration of

treatment. That is, in the CM group the duration of treatment was associated with lower levels of symptom severity. This was less true of the NOS group. In addition, treatment duration and measures of alcohol/drug taking attitudes as found on the InDUC were also considerably stronger in the CM group than in the NOS group. Although the data are correlational, they suggest that amongst the CM, the longer they were in treatment, the better their psychiatric status, and the fewer negative consequences related to substance use. The CM group was followed more closely and had more frequent contact with their case managers. As a result, case managers know these clients well and are sensitive to subtle changes in the client as well as the client's environment. This would mean case managers are alerted to problems as they arise, before they become unmanageable for the client, and before maladaptive coping mechanisms emerge. However, these differences must be interpreted with caution, as they are supported only by correlational analyses.

A variety of factors may have affected the outcomes of this study. Consider, for instance the WL group, which was potentially quite biased. With a waiting period of up to two years before program entry, clients are unlikely to wait for treatment. Those who were able, were likely seek help elsewhere. Others became hospitalized or transient. In either situation, contact with members of the WL group was not possible, resulting in a large portion of the group not being represented.

Subgroups within each of the two treatment groups may have also affected the results. Further research should study clinical diagnoses as a potential

influence on outcomes. For example, do individuals with Axis I diagnoses

experience greater improvement with treatment than those with Axis II disorders?

Thus, subgroups that do not respond well to treatment may have had a negative

impact on outcome, yet their impact may not be recognized.

The utility of the PSR was limited in part, because the data was collected

retrospectively. Although care was taken to optimize accuracy, there were

instances where data were not available. Therefore, reliance on clients' and case

managers' recall of past situations and events possibly increased the likelihood of

error.

PSR categories were numerous, and did not seem to pick up the expected

changes. This may be because few changes in these domains would be expected.

For example, changes in the educational domain are unlikely because if a client

was sufficiently disabled to warrant continued treatment with NOCDP, it is likely

that this area could not have shown significant improvement. Similarly, other

categories would show change in an unexpected direction. For instance,

hospitalizations might actually increase rather than decrease for clients who are

finally receiving the services they need with the assistance of their case manager.

Furthermore, income might increase rather than decrease with treatment, as the

client is able to obtain a disability pension or other social assistance with the

support of the program staff.

Using the GAF as a measure may also have had limitations because of its

subjective nature. Case managers, in consultation with the psychiatrist, determine

the GAF score. From a research perspective, it might have been better to have a

third person involved in the assignment of GAF scores as this would minimize

possible experimenter rating bias. However, there is one consideration that makes

this suggestion impossible to achieve: the GAF score is determined by level of

functioning of the client, and an individual who does not know the client, would

not be able to provide such a rating with any degree of accuracy.

Consider also, the complexity of the population being studied. The study

included all cooperative clients in the NOCDP program. This included those who

had just entered the program and were likely not functioning very well, as well as

those who had been in the program for some time (often, years) and where

improvement was variable. Any given client, at any given time could be in an

active stage of their disorder, and in distress.

Anecdotally, and confirmed by NOCDP staff, CM and NOS groups

demonstrate improvement in various aspects of their lives. This was confirmed by

statistically significant GAF results, indicating general improvement in CM and

NOS groups. Additional indirect support for this is found in correlational data,

indicating that the longer clients are in treatment, the fewer psychiatric symptoms

and consequences of substance abuse they report. Why then, were there

statistically significant results demonstrated on the GAF and not on other

measures of improvement such as hospitalizations, income, and residential status.

It was quite likely that these indicators are quite insensitive to the clinical status

of the clients studied. That is, this population has severe and persisting psychiatric

illness and for this client group, particularly the CM group, the goal is seldom

cure. Instead, it is to promote optimal management of psychiatric symptoms, substances, and quality of life.

While it cannot be said that the more intense treatment of the CM is more effective than that for the NOS group, it does appear to be effective for the group in which it was intended, as indicated by SCL-90, InDUC, and GAF scores. This study indicated that the more severely ill (CM) improved at a rate nearly equal to that of the less severely ill (NOS). This attests to the efficacy of treatment in the program. All clients, regardless of the severity of their disorder or life circumstances, benefit from treatment at NOCDP. Treatment is tailored to meet the needs of the individual client, and it appears clients in both groups reap the benefits from this approach.

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Appendix A

Psychosocial Rehabilitation Toolkit (PSR)

BASELINE DEMOGRAPHICS

(Please print using BLOCK letters and numbers inside boxes)

ID [ ][ ][ ][ ][ ][ ][ ][ ][ ] [ ][ ]   Date(mm/dd/yy): [ ][ ] / [ ][ ] / [ ][ ][ ]

Consumer Name:_____   Person Completing Form:[ ]
(Erase or Overwrite after entering ID)

Consumer's Status at baseline: O Assertive Case Management O Case Management (NOS) O Waiting List O Ogden

Date of birth (mm/dd/yy): [ ][ ] / [ ][ ] / [ ][ ][ ]

O Female   O Male

Initial date of program involvement (mm/dd/yy):   [ ][ ] / [ ][ ] / [ ][ ][ ]

Education: (circle highest grade completed)

0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20
            Primary   Secondary   College/University   Graduate/Professional

Marital Status
O Single, Never Married   O Married   O Cohabitating with Significant Other   O Separated   O Divorced   O Widowed

Dependents: (number of people you are financially supporting)   [ ][ ]

Age at first psychiatric hospitalization (in years):   [ ][ ]   (Enter 99 if never)

Was the consumer born in Canada? O Yes   O No   19 [ ][ ]
(If not, what year did the consumer arrive to establish permanent residence)?

What is the consumer's nationality?   O Canadian
Please choose one box and use the   O American
blank space if you need to (to qualify O Other (Specify)   [ ]
a choice or to specify a nationality   O Unknown
not listed).

How does the consumer describe   O Canadian   O Finnish
his/her culture? Please choose one O American   O Italian
and use the blank space if you need O Aboriginal/   O French
to (to qualify a choice or to specify a   First Nations   O Other European
culture not listed).   O Asian
                                   O Other(Specify)   [ ]
                                   O Unknown

How does the consumer describe   O Christian
his/her Religious/Spiritual   O Aboriginal Spiritual Tradition
background? Please choose one box O Jewish
and use the blank space if you need O Atheist
to (to qualify a choice or to specify a O Other(Specify)   [ ]
faith not listed).   O Unknown

CLINICAL INFORMATION
(Please print using BLOCK letters and numbers inside boxes)

ID [ ][ ][ ][ ][ ][ ][ ][ ]   [ ][ ]   Date(mm/dd/yy): [ ][ ] / [ ][ ] / [ ][ ][ ]

Does client have history of head injury | O Yes O No

Record Consumer's primary diagnosis by selecting one of the following categories:

O Mood Disorder   O Developmental Handicap   O Personality Disorder
O Anxiety Disorder   O Schizophrenic Disorder   O Other
O Organic Disorder   O Substance Related Disorder   O Unknown
O Specific Disorder of Childhood/Adolescence

Current DSM-IV Diagnoses:

(Choose one for each column.)

Axis I			Primary Diagnosis	Secondary Diagnosis
[ ][ ][ ]	[ ][ ]	_____	O	O
[ ][ ][ ]	[ ][ ]	_____	O	O
[ ][ ][ ]	[ ][ ]	_____	O	O
[ ][ ][ ]	[ ][ ]	_____	O	O
[ ][ ][ ]	[ ][ ]	_____	O	O

Axis II				
[ ][ ][ ]	[ ][ ]	_____	O	O
[ ][ ][ ]	[ ][ ]	_____	O	O
[ ][ ][ ]	[ ][ ]	_____	O	O

Axis III		Primary	Secondary
_____		O	O
_____		O	O
_____		O	O
_____		O	O
_____		O	O
_____		O	O

Axis IV		Primary	Secondary
_____		O	O
_____		O	O
_____		O	O
_____		O	O
_____		O	O
_____		O	O

Axis V   GAF   =   [ ][ ][ ]

RESIDENTIAL DOMAIN
(Please print using BLOCK letters and numbers inside boxes)

ID [ ][ ][ ][ ][ ][ ][ ][ ][ ]   [ ][ ]   Date(mm/dd/yy): [ ][ ] / [ ][ ] / [ ][ ][ ]

Consumer Name:_____   Person Completing Form:[   ]
(Erase or Overwrite after entering ID)

The consumer currently lives with (indicate all that apply):

O Spouse/Partner   O Parents   O Child(ren)   O Other family   O Non-family person(s)   O Self

Are the people in the living environment: (check all that apply)
O Substance users
O Mentally ill (treated)
O Mentally ill (untreated)
O Legal issues
O Unsupportive to treatment goals

What code best represents the consumer's CURRENT residential status?

O Independent
O Assisted/Supported
O Supervised Non-Facility
O Supervised Facility
O Treatment Institution
O Homeless
O Correctional Facility

Which of the following best represents the consumer's CURRENT residential type?

O Private house/apartment
O Hostel/Shelter
O Homes for special care
O Non-profit housing
O Boarding or rooming house
O Retirement home
O Supported housing
O Approved home

O Ontario housing
O Long term care facility
O Correctional facility
O Specialty hospital
O Psychiatric hospital
O General hospital
O Chronic care hospital
O Other [   ]

Is this a TEMPORARY or TRANSITIONAL situation? (Has been there for <30 days and will be elsewhere within 30 days): O No   O Yes

Done

What code best represents the consumer's PRIOR residential status?

O Independent
O Assisted/Supported
O Supervised Non-Facility
O Supervised Facility
O Treatment Institution
O Homeless
O Correctional Facility

Which of the following best represents the consumer's PRIOR residential type?

O Private house/apartment
O Hostel/Shelter
O Homes for special care
O Non-profit housing
O Boarding or rooming house
O Retirement home
O Supported housing
O Approved home

O Ontario housing
O Long term care facility
O Correctional facility
O Specialty hospital
O Psychiatric hospital
O General hospital
O Chronic care hospital
O Other [   ]

What code best represents the consumer's PLANNED residential status?

O Independent
O Assisted/Supported
O Supervised Non-facility
O Supervised Facility
O Treatment Institution
O Correctional Facility
O No Plan
O Unknown

Which of the following best represents the consumer's PLANNED residential type?

O Private house/apartment
O Hostel/Shelter
O Homes for special care
O Non-profit housing
O Boarding or rooming house
O Retirement home
O Supported housing
O Approved home

O Ontario housing
O Long term care facility
O Correctional facility
O Specialty hospital
O Psychiatric hospital
O General hospital
O Chronic care hospital
O Other [   ]

Hospitalization Domain

(Please print using BLOCK letters and numbers inside boxes)

ID: [ ][ ][ ][ ][ ][ ][ ][ ][ ] [ ][ ]   **Date (mm/dd/yy):** [ ][ ] / [ ][ ] / [ ][ ]

Consumer Name: _____   Person Completing Form: [_____]
(Erase or Overwrite after entering ID)

For the period ending today, and beginning: [ ][ ] / [ ][ ] / [ ][ ]   **Days in Period:** [ ][ ][ ]
(mm/dd/yy)

Indicate whether period is: ○ Baseline   ○ Follow-up

Hospital	Type*		Admission Date (mm/dd/yy)	Discharge Date (mm/dd/yy)	Length Of Stay (Days)
	O P O S / O G O M	O V O I	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ][ ]
	O P O S / O G O M	O V O I	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ][ ]
	O P O S / O G O M	O V O I	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ][ ]
	O P O S / O G O M	O V O I	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ][ ]
	O P O S / O G O M	O V O I	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ][ ]
	O P O S / O G O M	O V O I	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ][ ]
	O P O S / O G O M	O V O I	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ][ ]
	O P O S / O G O M	O V O I	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ] / [ ][ ] / [ ][ ]	[ ][ ][ ]

*: Type Codes: P=Psychiatric hospital, G=General hospital psychiatric ward, S=Substance abuse hospitalization, M=Medical hospitalization.

Episodes: [ ][ ]

Number Voluntary: [ ][ ]

Number Involutary: [ ][ ]

Calculation of Community Tenure:
Days In Period - Total LOS = [ ][ ][ ]

Total LOS: [ ][ ][ ]

LEGAL DOMAIN
(Please print using BLOCK letters and numbers inside boxes)

ID [ ][ ][ ][ ][ ][ ][ ][ ][ ] [ ][ ]   Date(mm/dd/yy): [ ][ ] / [ ][ ] / [ ][ ][ ][ ]

Consumer Name:_____   Person Completing Form:[_____]
(Erase or Overwrite after entering ID)

For the period ending today, and beginning: [ ][ ] / [ ][ ] / [ ][ ][ ][ ]
(mm/dd/yy)

Has consumer been arrested?   O N   O Y   If yes, total number of arrests: [ ][ ]

Any nights spent in prison/jail?   O N   O Y   If yes, total number of nights: [ ][ ]

Number separate Prison/Jail episodes: [ ][ ]

Has consumer been on parole/probation?   O N   OY   If yes, total number of times: [ ][ ]

Has consumer been diverted to another   O N   O Y   If yes, total number of times: [ ][ ]
program (such as a Forensics unit)?
If yes, specify_____

Education Domain
(Please print using BLOCK letters and numbers inside boxes)

ID: ☐☐☐☐☐☐☐☐☐ ☐☐   Date (mm/dd/yy): ☐☐ / ☐☐ / ☐☐

Consumer Name: _____
(Erase or Overwrite after entering ID)

Person
Completing
Form: [_____]

For the period ending today, and beginning: ☐☐ / ☐☐ / ☐☐
(mm/dd/yy)

Student During Period?: ○ No ○ Yes   Student During Past Week?: ○ No ○ Yes

For Consumers who were enrolled as students during the period please supply the following information:

Period of enrollment:

From*: ☐☐ / ☐☐ / ☐☐ (mm/dd/yy)

To*: ☐☐ / ☐☐ / ☐☐ (mm/dd/yy)

(within period dates)

Most recent institution of Enrollment:

○ Secondary (High School)   ○ Trade School (Non-High School)

○ Adult Education   ○ University

○ Community College   ○ Other

○ Vocational/Technical

Credit/classroom hours per week: ☐☐

Start date of current enrollment*: ☐☐ / ☐☐ / ☐☐ (mm/dd/yy)

(can proceed period start date)

*: Item requires continuous status monitoring.

EMPLOYMENT DOMAIN
(Please print using BLOCK letters and numbers inside boxes)

ID [　　　　　　　　　　] [　　] Date(mm/dd/yy): [　　] / [　　] / [　　　]

Consumer Name:_____ ____
(Erase or Overwrite after entering ID)

Person Completing Form: [　　　　　　　]

For the period ending today, and beginning: [　　] / [　　] / [　　　]
(mm/dd/yy)

Total Number of Paid Jobs*: [　　]
*: Item requires continuous status monitoring

Currently Working?:   O No   O Yes

Current Benefits?:   O No   O Yes

Hrs/wk: [　　]   O Full-time   Status Code** [　　]
                 O Part-time

Weekly Wage: $ [　　] . [　　]

Start Date* (mm/dd/yy): [　　] / [　　] / [　　]

Job Description And Location	Benefits?	Start Date (mm/dd/yy)	End Date (mm/dd/yy)	Hours Wages
	O N O Y	[　] / [　] / [　]	[　] / [　] / [　]	Weekly Hours [　]
	Status Code: [　]			
	O N O Y	[　] / [　] / [　]	[　] / [　] / [　]	Weekly Hours [　]
	Status Code: [　]			
	O N O Y	[　] / [　] / [　]	[　] / [　] / [　]	Weekly Hours [　]
	Status Code: [　]			

**: Status Codes: 1=No Employment of Any Kind, 2=Non-Paid Work Experience, 3=Sheltered Workshop, 4=Sporadic or Casual Employment (Odd jobs), 5=Work -Crew Model, 6=In-House Transitional Employment Model, 7=Agency Paid Transitional Employment Model, 8=Transitional Employment Model, 9=Job Coach Model, 10=Assisted Competitive Model, 11=Independent Competitive Employment, 12=LTIP, 13=WCB

INCOME DOMAIN
(Please print using BLOCK letters and numbers inside boxes)

ID [ ][ ][ ][ ][ ][ ][ ][ ] [ ][ ]   Date(mm/dd/yy): [ ][ ] / [ ][ ] / [ ][ ][ ]

Consumer Name: _____   Person Completing Form: [_____]
(Erase or Overwrite after entering ID)

Type of Income/Benefits:	Amount Received in Past Month (Code $0 if no income from a source)	
Ontario Works	F1A	☐
Ontario Disability Support Program	F1B	☐
CPP Disability	F1D	☐
Earnings (self & spouse/partner)	F1E	☐
Employment Insurance	F1F	☐
Workplace Safety & Insurance	F1G	☐
Old Age Supplement (OAS), GIS, SPA	F1H	☐
Allowance/Income from Family	F1I	☐
Other Income, not Earnings or Benefits (eg., alimony, child support, retirement)	F1J	☐

Specify: [_____]

| Total Past Month, All Income and Benefits (Sum of F1A through F1J) | F2 | ☐ |

*Monthly Pay Ranges (use letter code)

A $ 0 - 500   D $ 1501-2000

B $ 501-1000   E $ 2000+

C $1001-1500

MEMBER CONSUMER SURVEY
(Please print using BLOCK letters and numbers inside boxes)

ID [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] [ ][ ] Date(mm/dd/yy): [ ][ ] / [ ][ ] / [ ][ ][ ]

In order to get information about how people are feeling in a variety of areas, we are asking that you complete the following survey. All information will remain confidential. If you need help understanding the statements, please feel free to ask for help.
Each statement is followed by four options. Please shade the response which most closely represents how you feel. Thank you for your time.

	Strongly Disagree	Disagree	Agree	Strongly Agree
S1. If I were given the opportunity I am sure I could work.	O	O	O	O
S2. Overall, I am satisfied with my life.	O	O	O	O
S3. Overall, I am satisfied with the program.	O	O	O	O
S4. I feel I have the right to approve all services I receive.	O	O	O	O
F5. The services offered at this program are relevant to my needs.	O	O	O	O
F6. Overall, I have a good relationship with members of my family.	O	O	O	O
F7. I know who to go to when I am not receiving good service.	O	O	O	O
F8. I can do just about anything I set my mind to.	O	O	O	O
F9. I can change many of the important things in my life.	O	O	O	O
F10. The staff here are interested in my moving on to better things.	O	O	O	O
F11. I am happy with my current living situation.	O	O	O	O
F12. I have a lot of choice about how I spend my free time.	O	O	O	O
F13. I have an active social life.	O	O	O	O
F14. I would recommend this program to other people needing services.	O	O	O	O
F15. My opinions and ideas count in the development of my rehabilitation plan.	O	O	O	O
F16. What happens to me in the future mostly depends on me.	O	O	O	O
F17. I believe that together with others I can influence the mental health social service system.	O	O	O	O
F18. I am inclined to think I am a success.	O	O	O	O
F19. I am in good physical health.	O	O	O	O
F20. I want to remain in this program for the time being.	O	O	O	O

Appendix B

Symptom Checklist -90-R (SCL-90-R)

INSTRUCTIONS:

Below is a list of problems people sometimes have. Please read each one carefully, and blacken the circle that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Blacken the circle for only one number for each problem and do not skip any items. If you change your mind, erase your first mark carefully. Read the example before beginning, and if you have any questions please ask them now.

	NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY	EXAMPLE
						HOW MUCH WERE YOU DISTRESSED BY:
1	⓪	①	②	●	④	Bodyaches

	NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY	HOW MUCH WERE YOU DISTRESSED BY:
1	⓪	①	②	③	④	Headaches
2	⓪	①	②	③	④	Nervousness or shakiness inside
3	⓪	①	②	③	④	Repeated unpleasant thoughts that won't leave your mind
4	⓪	①	②	③	④	Faintness or dizziness
5	⓪	①	②	③	④	Loss of sexual interest or pleasure
6	⓪	①	②	③	④	Feeling critical of others
7	⓪	①	②	③	④	The idea that someone else can control your thoughts
8	⓪	①	②	③	④	Feeling others are to blame for most of your troubles
9	⓪	①	②	③	④	Trouble remembering things
10	⓪	①	②	③	④	Worried about sloppiness or carelessness
11	⓪	①	②	③	④	Feeling easily annoyed or irritated
12	⓪	①	②	③	④	Pains in heart or chest
13	⓪	①	②	③	④	Feeling afraid in open spaces or on the streets
14	⓪	①	②	③	④	Feeling low in energy or slowed down
15	⓪	①	②	③	④	Thoughts of ending your life
16	⓪	①	②	③	④	Hearing voices that other people do not hear
17	⓪	①	②	③	④	Trembling
18	⓪	①	②	③	④	Feeling that most people cannot be trusted
19	⓪	①	②	③	④	Poor appetite
20	⓪	①	②	③	④	Crying easily
21	⓪	①	②	③	④	Feeling shy or uneasy with the opposite sex
22	⓪	①	②	③	④	Feelings of being trapped or caught
23	⓪	①	②	③	④	Suddenly scared for no reason
24	⓪	①	②	③	④	Temper outbursts that you could not control
25	⓪	①	②	③	④	Feeling afraid to go out of your house alone
26	⓪	①	②	③	④	Blaming yourself for things
27	⓪	①	②	③	④	Pains in lower back
28	⓪	①	②	③	④	Feeling blocked in getting things done
29	⓪	①	②	③	④	Feeling lonely
30	⓪	①	②	③	④	Feeling blue
31	⓪	①	②	③	④	Worrying too much about things
32	⓪	①	②	③	④	Feeling no interest in things
33	⓪	①	②	③	④	Feeling fearful
34	⓪	①	②	③	④	Your feelings being easily hurt
35	⓪	①	②	③	④	Other people being aware of your private thoughts
36	⓪	①	②	③	④	Feeling others do not understand you or are unsympathetic
37	⓪	①	②	③	④	Feeling that people are unfriendly or dislike you

NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY	HOW MUCH WERE YOU DISTRESSED BY:
					38 Having to do things very slowly to insure correctness
					39 Heart pounding or racing
					40 Nausea or upset stomach
					41 Feeling inferior to others
					42 Soreness of your muscles
					43 Feeling that you are watched or talked about by others
					44 Trouble falling asleep
					45 Having to check and double-check what you do
					46 Difficulty making decisions
					47 Feeling afraid to travel on buses, subways, or trains
					48 Trouble getting your breath
					49 Hot or cold spells
					50 Having to avoid certain things, places, or activities because they frighten you
					51 Your mind going blank
					52 Numbness or tingling in parts of your body
					53 A lump in your throat
					54 Feeling hopeless about the future
					55 Trouble concentrating
					56 Feeling weak in parts of your body
					57 Feeling tense or keyed up
					58 Heavy feelings in your arms or legs
					59 Thoughts of death or dying
					60 Overeating
					61 Feeling uneasy when people are watching or talking about you
					62 Having thoughts that are not your own
					63 Having urges to beat, injure, or harm someone
					64 Awakening in the early morning
					65 Having to repeat the same actions such as touching, counting, or washing
					66 Sleep that is restless or disturbed
					67 Having urges to break or smash things
					68 Having ideas or beliefs that others do not share
					69 Feeling very self-conscious with others
					70 Feeling uneasy in crowds, such as shopping or at a movie
					71 Feeling everything is an effort
					72 Spells of terror or panic
					73 Feeling uncomfortable about eating or drinking in public
					74 Getting into frequent arguments
					75 Feeling nervous when you are left alone
					76 Others not giving you proper credit for your achievements
					77 Feeling lonely even when you are with people
					78 Feeling so restless you couldn't sit still
					79 Feelings of worthlessness
					80 The feeling that something bad is going to happen to you
					81 Shouting or throwing things
					82 Feeling afraid you will faint in public
					83 Feeling that people will take advantage of you if you let them
					84 Having thoughts about sex that bother you a lot
					85 The idea that you should be punished for your sins
					86 Thoughts and images of a frightening nature
					87 The idea that something serious is wrong with your body
					88 Never feeling close to another person
					89 Feelings of guilt
					90 The idea that something is wrong with your mind

Appendix C

Inventory of Drug Use Consequences (InDUC)

Inventory of Drug Use Consequences (InDUC-2R)

NAME: DATE:

INSTRUCTIONS: Here are a number of events that people sometimes experience in
relation to their use of alcohol and other drugs. Read each one carefully and indicate how
often each one has happened to you DURING THE PAST 3 MONTHS by circling the
appropriate number (0 = Never, 1 = Once or a few times, etc.). If an item does not apply
to you, circle zero (0).

DURING THE PAST 3 MONTHS, about how often has this happened to you?

Circle one answer for each item.	Never	Once or a few times	Once or twice a week	Daily or almost daily
1. I have had a hangover or felt bad drinking or using drugs.	0	1	2	3
2. I have felt bad about myself because of my drinking or drug use.	0	1	2	3
3. I have missed days of work or school because of my drinking or drug use.	0	1	2	3
4. My family or friends have worried or complained about my drinking or drug use.	0	1	2	3
5. I have enjoyed drinking or using drugs.	0	1	2	3
6. The quality of my work has suffered because of my drinking or drug use.	0	1	2	3
7. My ability to be a good parent has been harmed by my drinking or drug use.	0	1	2	3
8. After drinking or using drugs, I have had trouble with sleeping, staying asleep, or nightmares.	0	1	2	3
9. I have driven a motor vehicle while under the influence of alcohol or other drugs.	0	1	2	3
10. Drinking or using one drug has caused me to use other drugs more.	0	1	2	3

DURING THE PAST 3 MONTHS, about how often has this happened to you?
Circle one answer for each item.

	Never	Once or a few times	Once or twice a week	Daily or almost daily
11. I have been sick and vomited after drinking or using drugs.	0	1	2	3
12. I have been unhappy because of my drinking or drug use.	0	1	2	3
13. Because of my drinking or drug use, I have lost weight or not eaten properly.	0	1	2	3
14. I have failed to do what is expected of me because of my drinking or drug use.	0	1	2	3
15. Drinking or using drugs has helped me to relax.	0	1	2	3
16. I have felt guilty or ashamed because of my drinking or drug use.	0	1	2	3
17. While drinking or using drugs, I have said or done embarrassing things.	0	1	2	3
18. When drinking or using drugs, my personality has changed for the worse.	0	1	2	3
19. I have taken foolish risks when I have been drinking or using drugs.	0	1	2	3
20. I have gotten into trouble because of drinking or drug use.	0	1	2	3
21. While drinking or using drugs, I have said harsh or cruel things to someone.	0	1	2	3
22. When drinking or using drugs, I have done impulsive things that I regretted later.	0	1	2	3
23. I have gotten into a physical fight while drinking or using drugs.	0	1	2	3
24. My physical health has been harmed by my drinking or drug uses.	0	1	2	3

DURING THE PAST 3 MONTHS, about how often has this happened to you?
Circle one answer for each item.

	Never	Once or a few times	Once or twice a week	Daily or almost daily
25. Drinking or using drugs has helped me to have a more positive outlook on life.	0	1	2	3
26. I have had money problems because of my drinking or drug use.	0	1	2	3
27. My marriage or love relationship has been harmed by my drinking or drug use.	0	1	2	3
28. I have smoked tobacco more when I am drinking or using drugs.	0	1	2	3
29. My physical appearance has been harmed by my drinking or drug use.	0	1	2	3
30. My family has been hurt by my drinking or drug use.	0	1	2	3
31. A friendship or close relationship has been damaged by my drinking or drug use.	0	1	2	3
32. I have spent time in jail or prison because of my drinking or drug use.	0	1	2	3
33. My sex life has suffered because of my drinking or drug use.	0	1	2	3
34. I have lost interest in activities and hobbies because or my drinking or drug use.	0	1	2	3
35. When drinking or using drugs, my social life has been more enjoyable.	0	1	2	3
36. My spiritual or moral life has been harmed by my drinking or drug use.	0	1	2	3
37. Because of my drinking or drug use, I have not had the kind of life that I want.	0	1	2	3
38. My drinking or drug use has gotten in the way of my growth as a person.	0	1	2	3

DURING THE PAST 3 MONTHS, about how often has this happened to you?

Circle one answer for each item.	Never	Once or a few times	Once or twice a week	Daily or almost daily
39. My drinking or drug use has damaged my social life, popularity, or reputation.	0	1	2	3
40. I have spent too much or lost a lot of money.	0	1	2	3

Now, please indicate whether these things have happened to you DURING THE PAST 3 MONTHS.

Has this happened to you DURING THE PAST 3 MONTHS?

Circle one answer for each item.	Never	Once or a few times	Once or twice a week	Daily or almost daily
41. I have been arrested for drinking under the influence of alcohol or other drugs.	0	1	2	3
42. I have been arrested for other offenses (besides driving under the influence) related to my drinking or other drug use.	0	1	2	3
43. I have lost a marriage or a close love relationship because of my drinking or drug use.	0	1	2	3
44. I have been suspended/fired from or left a job or school because of my drinking or drug use.	0	1	2	3
45. I have used drugs moderately, without having problems.	0	1	2	3
46. I have lost a friend because of my drinking or drug use.	0	1	2	3
47. I have had an accident while using or under the influence of alcohol or drugs.	0	1	2	3
48. While using or under the influence of alcohol or drugs, I have been physically hurt, injured, or burned.	0	1	2	3
49. While using or under the influence of alcohol or drugs, I have injured someone.	0	1	2	3

Tables

Table 1

Client Participation

Participation	Case Managed	NOS	Wait List
Participants	62	16	19
Moved	1	0	8
Whereabouts Unknown	2[a]	1	3
Refused	1[a]	0	0
Incarcerated	1[a]	0	1
Too Ill	6[a]	2	3
Initial Participants	73	19	34

[a]Indicates participants who were included in the study but did not complete any self-report questionnaires.

Table 2

Testing and Test Timing as They Relate to Group Population

Group	Initial Program Contact	Current		
	PSR	PSR	SCL-90-R	InDUC
Case Managed	√	√	√	√
NOS	√	√	√	√
Waiting List	√	(Some)	√	√

Table 3

Significant Chi-Square Values for Demographics

Category	Value	df	Significance
Gender	8.22	2	<.05
Axis IV	27.45	14	<.05
Housing Type (Baseline)	12.29	4	<.05
Living Environment (Baseline)	10.57	4	<.05
Employment Status (Baseline)	10.57	8	<.05
Employment Status (Current)	17.40	8	<.05
Hospital Admissions (Baseline)	5.83	2	<.05
Hospital Admissions (Current)	16.37	2	<.001
Involuntary Hospitalizations (Baseline)	16.27	2	<.001
Involuntary Hospitalizations (Current)	13.35	2	<.001
Number of Jobs (Baseline)	7.75	2	<.05
Number of Jobs (Current)	16.27	2	<.001

Table 4

Client Demographics

Group	M	F	Age	Education	Alcohol Dependence[a]	
	Gender		**Age**	**Education**	**Alcohol Dependence[a]**	
			M	M	N	%
			(SD)	(SD)		
Case Managed	26	36	41.02	11.49	41	66.1
			(12.27)	(3.11)		
NOS	7	9	36.78	12.67	8	50
			(9.64)	(2.29)		
Wait List	15	4	42.64	9.86	7	36.8
			(11.73)	(3.53)		
Total	48	49	40.82	11.33		
			(11.87)	(3.17)		

[a]Indicates Primary substance.

Table 5

Group Differences in Housing Types at Baseline

	Number of Clients in Each Housing Situation		
	CM N(%)	NOS N(%)	WL N(%)
[a]Desireable Housing	50(81)	14(87)	10(62)
[b]Undesireable Housing	11(18)	0(0)	6(37)
[c]Institutional Placement	1(2)	2(12)	0(0)

[a]Desireable Housing would include house, apartment, non-profit housing, approved home, or supported housing

[b]Undesireable Housing would include boarding house, hostel, shelter, street living, or no fixed address

[c]Institutional Placement would include psychiatric hospital or correctional facility

Table 6

Group Differences in Cohabitants at Baseline

	Number of Clients Cohabitating		
	CM N(%)	NOS N(%)	WL N(%)
Living Alone	22(35)	2(12)	9(56)
Living With Family	28(45)	12(75)	3(19)
Living With Non-Family	12(19)	2(12)	4(25)

Table 7

Marital Status of CM, NOS, and WL Groups

Marital Status	Case Managed N (%)	NOS N (%)	Wait List N (%)
Single	23 (37)	7 (44)	5 (29)
Married	5 (8)	1 (6)	1 (6)
Cohabitating	7 (11)	4 (25)	2 (12)
Separated	11 (18)	2 (13)	2 (12)
Divorced	11 (18)	1 (6)	6 (35)
Widow	5 (8)	1 (6)	1 (6)

Table 8

Employment Status Between Groups at Baseline

	Number of Clients in Various Employment Situations		
	CM	NOS	WL
	N(%)	N(%)	N(%)
No Employment	48(77)	7(44)	11(69)
Employment	9(14)	4(25)	5(31)
Private Disability Insurance	4(6)	4(25)	0(0)
Volunteer Work	0(0)	1(6)	0(0)
Assisted Employment	1(2)	0(0)	0(0)

Table 9

Current Employment Status Between Groups

	Number of Clients in Various Employment Situations		
	CM	NOS	WL
	N(%)	N(%)	N(%)
No Employment	50(83)	8(50)	6(60)
Employment	4(7)	5(31)	4(40)
Private Disability Insurance	3(5)	1(6)	0(0)
Volunteer Work	0(0)	1(6)	0(0)
Assisted Employment	3(5)	1(6)	0(0)

Table 10

Hospital Admissions Between Groups, Baseline and Current

Hospital Admissions

	Baseline		Current	
	0	≥1	0	≥1
	N(%)	N(%)	N(%)	N(%)
CM	34(55)	28(45)	26(42)	36(58)
NOS	10(62)	6(38)	15(94)	1(6)
WL	5(26)	14(74)	6(32)	13(68)

Table 11

Current Involuntary Hospital Admissions Between Groups

Involuntary Hospital Admissions

	Baseline		Current	
	0	≥1	0	≥1
	N(%)	N(%)	N(%)	N(%)
CM	50(81)	12(19)	48(77)	14(23)
NOS	15(94)	1(6)	16(100)	0(0)
WL	14(74)	5(26)	9(47)	10(53)

Table 12

Axis IV Group Differences

Axis IV Category	Group	
	CM N(%)	NOS N(%)
Primary Support	31(51)	9(56)
Social Environment	42(69)	8(50)
Economic	35(57)	10(62)
Educational	6(10)	3(19)
Occupational	27(44)	8(50)
Social Activity	48(79)	8(50)
Housing	12(20)	3(19)
Economic	35(57)	10(62)
Illegal Activity	11(18)	1(6)
Access to Health Care	1(2)	0(0)
Other	13(21)	2(12)
None	3(5)	1(6)

Table 13

Substance Use Between Groups

	Case Managed	NOS	Wait List
Substance	N(%)	N(%)	N(%)
Alcohol	52(84)	13(81)	9(53)
Amphetamines	1(2)	0(0)	0(0)
Cannabis	10(16)	4(25)	1(6)
Cocaine	9(14.5)	2(12.5)	2(12)
Inhalants	1(2)	0(0)	0(0)
Nicotine	1(2)	2(12.5)	0(0)
Opiods	9(14.5)	3(19)	0(0)
Sedatives	12(19)	2(12.5)	1(6)
Polysubstances	1(2)	0(0)	2(12)
Other	2(3)	0(0)	0(0)

Table 14

Primary Axis I Diagnosis (Excluding Substance)

Diagnosis	Case Managed		NOS	
	N	%	N	%
Cognitive	2	3.22	0	0
Psychotic	12	19.35	2	12.5
Mood	32	51.61	8	50.1
Anxiety	10	16.13	3	18.75
Somatoform	1	1.61	0	0
Dissociative	1	1.61	0	0
Eating	1	1.61	0	0
Childhood Diagnosis	2	3.22	3	18.75
None	1	1.61	0	0

Table 15

Axis V: Global Assessment of Functioning

Group	GAF ≤ 20 N(%)	GAF 21-50 N(%)	GAF 51-60 N(%)	GAF 61+ N(%)	GAF M(SD)
CM (Baseline)	27(42.2)	37(57.8)	0(0)	0(0)	25.19(8.34)
NOS (Baseline)	3(16.7)	15(83.3)	0(0)	0(0)	28.56(8.66)
CM (Current)	3(5)	29(48.3)	16(26.7)	12(20)	49.62(15.69)
NOS (Current)	0(0)	5(35.7)	4(28.6)	5(35.7)	56.86(12.21)

Table 16

PSR Variable Changes Between CM and NOS Groups

Variable	Baseline		Current	
	F(df)	Significance	F(df)	Significance
Income	1.14(2,87)	NS	.38(2,78)	NS
Hospital Admissions	1.20(2,91)	NS	2.40(2,79)	NS
Hospital Length of Stay	.80(2,89)	NS	2.07(2,78)	NS
Number of Jobs[a]	3.36(2,91)	<.05	5.55(2,82)	<.01

[a]Bonferroni correction p < .04

Table 17

Intercorrelations Between SCL-90-R and Number of Treatment Months

Subscale	Treatment Months			
	All Groups	CM	NOS	WL
	(N = 79)	(n = 47)	(n = 13)	(n = 19)
Somatization	-.18	.04	-.23	-.18
Obsessive Compulsive Behaviour	-.16	.01	-.21	.19
Interpersonal Sensitivity	-.13	-.06	-.13	.10
Depression	-.13	.04	-.11	-.20
Anxiety	-.26*	-.15	.13	-.08
Hostility	-.28*	-.20	-.09	.19
Phobic Anxiety	-.29**	-.29*	.21	-.01
Paranoia	-.28**	-.13	-.11	-.10
Psychoticism	-.26*	-.04	-.08	-.25
Global Severity Index	-.23*	-.06	-.35	-.09
Positive Symptom Total	-.28**	-.16	.26	-.20
Positive Symptom Distress Index	-.10	.07	-.25	-.04

*$p < .05$ (1-tailed). **$p < .01$ (1-tailed).

Table 18

Intercorrelations Between InDUC and Number of Treatment Months

Subscale	Treatment Months			
	All Groups	CM	NOS	WL
	(N = 83)	(n = 50)	(n = 15)	(n = 18)
Physical	-.48*	-.41*	-.19	-.33
Interpersonal	-.45*	-.47*	-.10	-.31
Intrapersonal	-.41*	-.37*	-.16	-.36
Impulse	-.46*	-.43*	-.09	-.27
Social Responsibility	-.49*	.48*	-.20	-.37
Total	-.48*	-.45*	-.17	-.34

*$p < .01$ (1-tailed)

Table 19

Survey Reliabilities

| Abridged Item	Corrected Item Total Correlation
Mastery	
1. I am sure I could work.	.096[a]
8. I can do just about anything.	.481[a]
9. I can change many important in my life.	.574[a]
16. What happens to me mostly depends on me.	.341[a]
Quality of Life	
2. I am satisfied with my life.	.597[b]
6. I have a good relationship with my family.	.402[b]
11. I am happy with my living situation.	.636[b]
12. I have a lot of choice about how I spend my free time.	.476[b]
13. I have an active social life.	.543[b]
18. I am inclined to think I am a success.	.515[b]
19. I am in good physical health.	.280[b]
Program Satisfaction	
3. I am satisfied with the program.	.487[c]
4. I have the right to approve all services I receive.	.552[c]
5. The services here are relevant to my needs.	.557[c]
7. I where to go when not receiving good service.	.450[c]
10. The staff are interested in my progress.	.543[c]
14. I would recommend this program to others.	.564[c]
15. My opinions count in my rehabilitation plan.	.523[c]
17. I believe I can influence the system.	.219[c]
20. I want to remain in this program for now.	.542[c]

[a]Alpha =.5573, [b]Alpha = .7679, [c]Alpha = .7885

Figures

Figure 1

Baseline GAF Scores

Groups: CM = 1.0, NOS = 2.0

Figure 2

Current GAF Scores

GROUP

Groups: CM = 1.0, NOS = 2.0
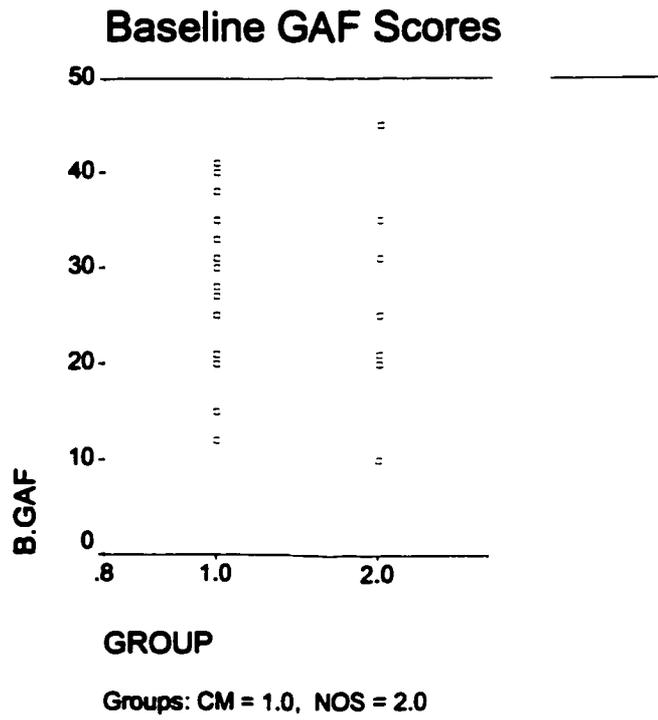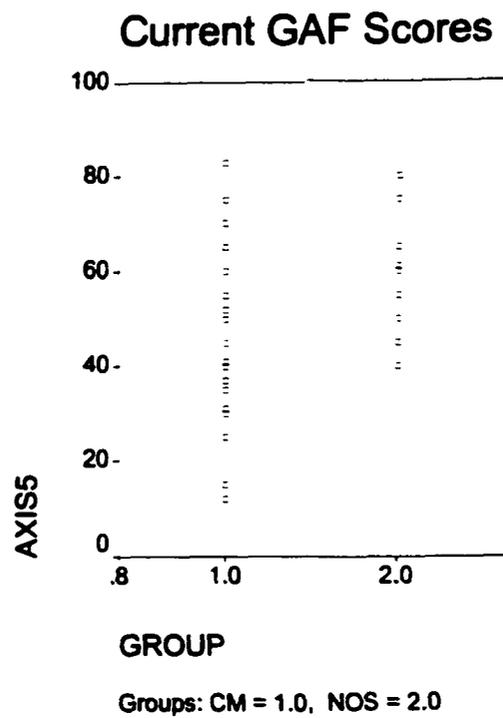
Figure 3

Differential Group Effects on Axis V

| | Case Managed |
| | NOS Group |

Figure 4

Mean Number of Jobs Between Groups

(Baseline Measure)

GROUP

Groups: 1 = CM, 2 = NOS, 3 = WL

Figure 5

Mean Number of Jobs Between Groups
(Current Measure)

GROUP

Groups: 1 = CM, 2 = NOS, 3 = WL
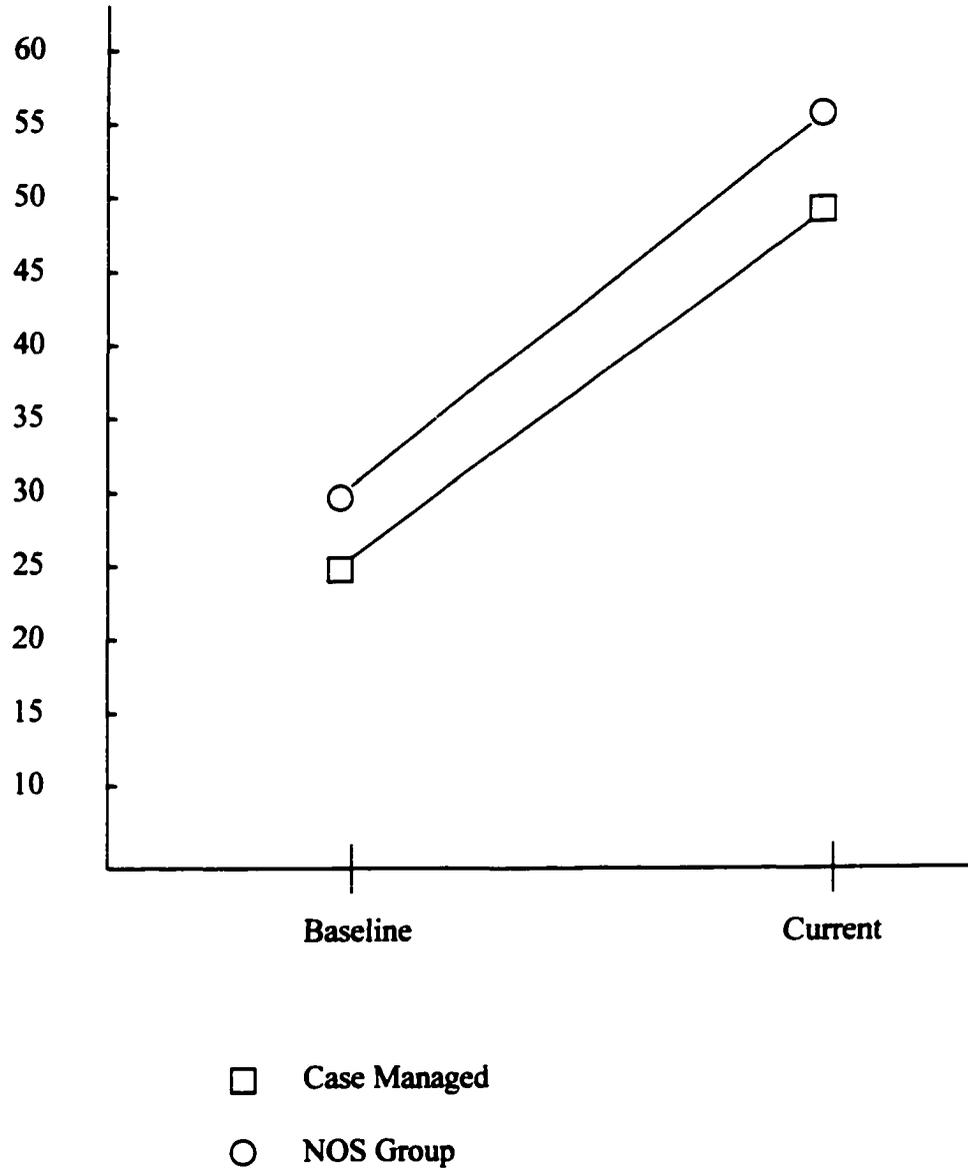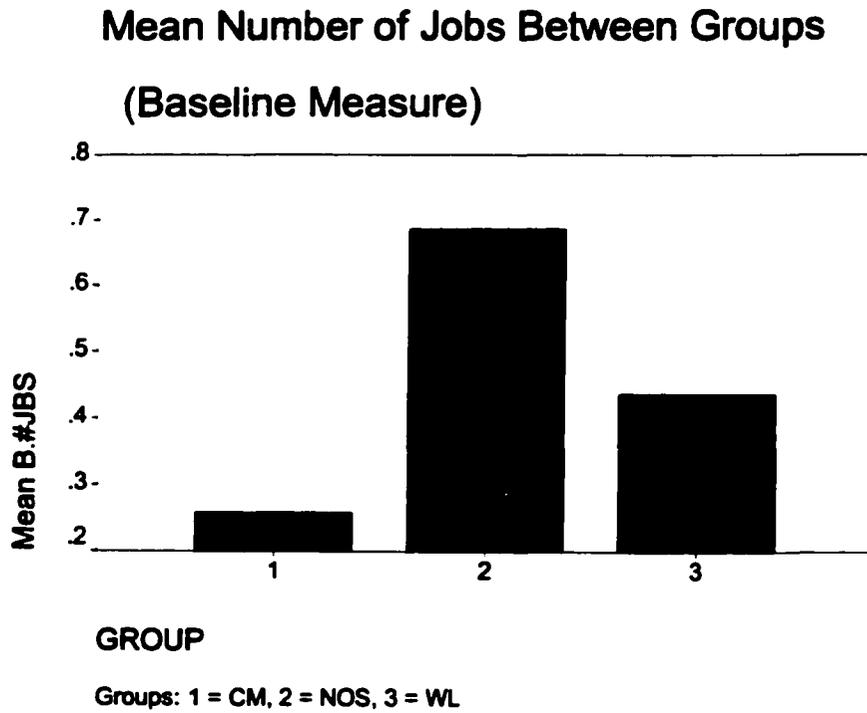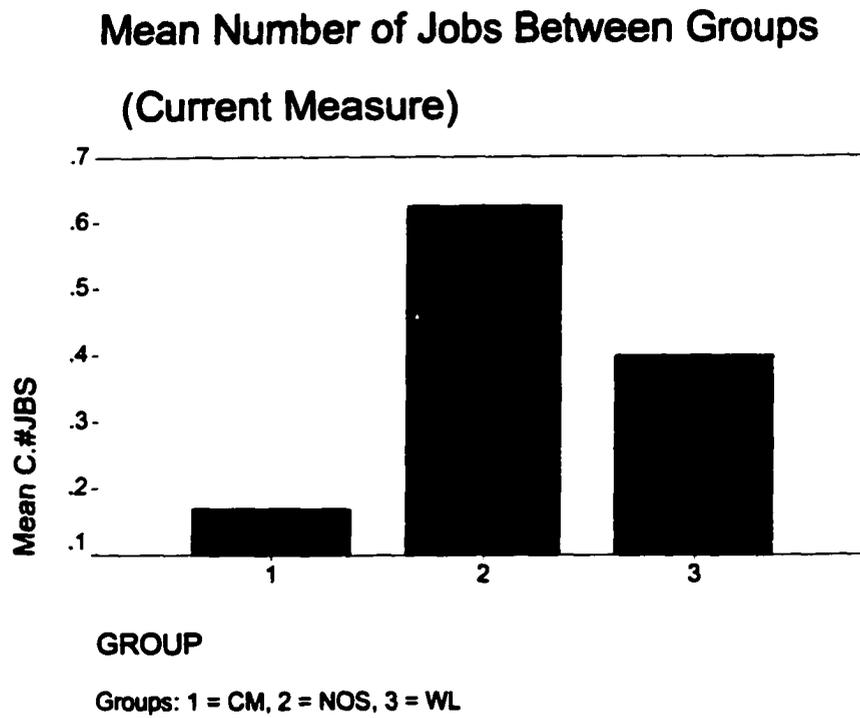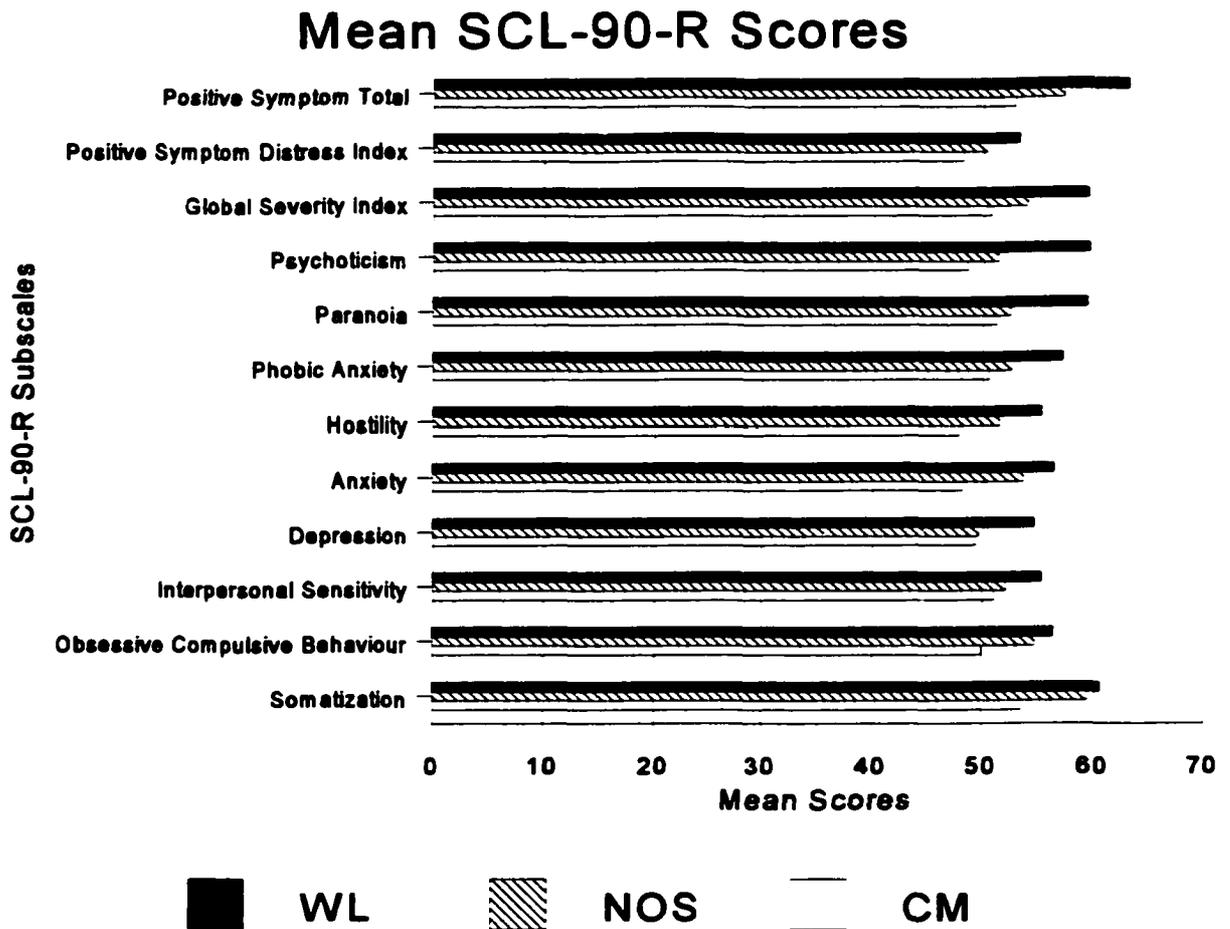
Figure 6

Figure 6. SCL-90-R score differences between treatment groups.

Figure 7

Mean InDUC Scores
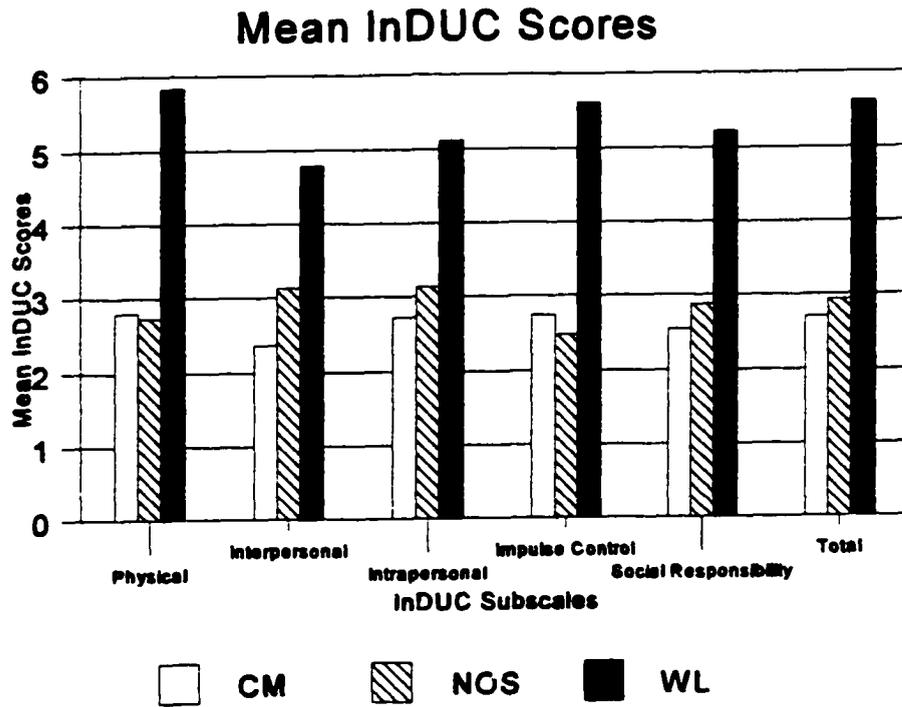
Figure 7. InDUC score differences between treatment groups.