Iowa Consortium for Substance Abuse Research and Evaluation

The TOW Evaluation Project Final Report

Summary

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FINAL REPORT Approved

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Introduction

The Iowa Consortium for Substance Abuse Research and Evaluation conducted an evaluation of The Other Way (TOW) program located at Clarinda, Iowa from October, 1997 through March, 2001. The evaluation was funded through a series of two grants awarded by the National Institute of Justice (NIJ). The data presented in this report focus on a sample of 351 inmates who participated in the TOW program from October, 1997 through September, 2000.

Research Questions

The TOW project was undertaken to answer the following research questions:

1. What services are provided to which types of inmates? Knowing what treatment is received and how it changes over time provides documentation for the TOW program, and how it is constantly modified.

2. Does the program accomplish its stated intermediate goals (i.e. influence attitude change) regarding substance abuse? Knowing how inmates change from the beginning of TOW treatment to the end allows treatment staff to identify areas of the curriculum that produce desired effects and areas in which the curriculum is lacking and needs modification.

3. Are there differences between clients that complete the cognitive unit program at TOW versus the two 12-step-based units? The initial design of the evaluation planned to use a comparison group of TOW inmates enrolled in a cognitive version of TOW. This comparison group was not available because the curriculum took longer to implement than originally planned, the curriculum changes were not as extensive as originally planned, and the program was discontinued shortly after implementation.

4. Are certain types of clients better served by the TOW program than others? Knowing who succeeds and who fails allows the judicial system to better match inmates with treatment resources. It also allows prison treatment staff to focus attention on those who may need it more.

Literature Review

According to the U.S. Department of Justice, correctional systems nationwide are experiencing ever-increasing numbers of drug offenders. The Iowa Department of Corrections has seen the prison population grow by nearly 400% in the past 10 years to a total exceeding 8,000. Much of the increase is due to legislative decisions in the early 1990s creating harsher penalties for drug offenses, and longer sentences for a variety of criminal offenders.

Substance use disorders are endemic among offenders. In the NIMH-directed Epidemiologic Catchment Area (ECA) survey, 72% of institutionalized persons surveyed had a lifetime addictive disorder, a rate more than twice that found in the general population; the figure was 82% for those in prison settings (Regier et al., 1990). The high rate among inmates was primarily attributable to a very high (72%) lifetime prevalence of substance abuse, in which 56% had an

alcohol addiction and 54% had another drug disorder. The ECA survey also found that the co-occurrence of mental and addictive disorders was highest in the prison population among inmates diagnosed with antisocial personality disorder, schizophrenia, or bipolar disorder.

Nearly 50% of inmates in State and Federal prisons in 1997 reported using drugs or alcohol while committing their offense, and about one in six inmates committed crimes to obtain money for drugs (SAMHSA, 2000). In 1995, drug offenders accounted for 23% of the State prison population, up from 6% in 1980, and 60% of the Federal population in 1997, up from 25% in 1980. This increase in the drug offender prison population mirrors the steady increase in arrests for drug offenses.

Research findings on the effectiveness of drug treatment offer hope that recidivism can be reduced (Travis, 2000.) One such treatment that is becoming more popular is the therapeutic community (Kennard, 1998), which provides the opportunity for intensive support that is difficult to duplicate in outpatient settings (Wexler, 1995), and has been shown when used in a prison setting to reduce postrelease rearrest rates (Pelissier et al., 2001). Theraputic communities in prison settings have also been shown to decrease illicit drug use among inmates while incarcerated (Prendergast, Farabee, & Cartier, 2001), and to significantly lower rates of postrelease drug relapse (Inciardi et al., 1997). Among the most important predictors of postrelease drug usage are length of stay in program and education (Wexler, 1990; Cutter et al., 1977).

Methodology

"The Other Way" (TOW) program is an intensive residential substance abuse treatment program housed at the Clarinda Correctional Facility (CCF), a medium secured correctional facility in Clarinda, Iowa. The program provides comprehensive substance abuse treatment services in three dedicated treatment units totaling 240 treatment beds. All newly admitted offenders in the state are received by the Iowa Medical and Classification Center (IMCC) at Oakdale, IA where they are evaluated for substance abuse. Inmates sent to the Clarinda Correctional facility are referred to the TOW program if they have an identified need for residential-level substance abuse treatment and are within twelve months of release consideration.

The TOW program, a modified Therapeutic Community model, is an intense six-month long program helps inmates identify the causes of their addictive behaviors and encourages changes in unacceptable behaviors and criminal thinking. Inmates, who participate on a voluntary basis, must adhere to all program, facility and Department of Correction rules and demonstrate progress in treatment. The TOW program is structured so that inmates who successfully complete the TOW program are released within four to twelve weeks.

A variety of treatment modalities are used in the program. Those most frequently used include: 1) peer encounter groups; 2) social skills training; 3) cognitive therapy; 4) problem-solving skills training; 5) education; 6) anger management; 7) relapse prevention; and 8) group processes. Some are used in the program for all inmates; others are specific to inmates as identified by the individualized treatment plan developed early in the TOW program. The TOW program is

comprised of three consecutive phases whereby all three phases require participation in all treatment activities and progression is based on staff recommendation.

Phase I (Orientation) is a highly structured orientation phase that is educational in nature. This phase is approximately twenty days in length. Phase I inmates have a very structured schedule and few privileges. The two major tasks of this phase are to: 1) help the inmates adjust to a residential treatment program; and 2) break through denial and minimization regarding addiction. Inmates complete a substance abuse education program that focuses on the addiction process.

Phase II is the main treatment phase of the program and is of an indeterminate length. The daily schedule of Phase II is highly structured with therapy as the focus. During this time, inmates continue to learn about the recovery process by identifying deficiencies in life management skills and errors in thinking that impact their life and make it difficult to manage various situations. Phase II takes place in a safe therapeutic environment where inmates are expected to accept new behaviors and techniques that will facilitate and maintain the recovery process.

Phase III is approximately seven weeks in length and focuses on preparing the inmate to succeed once released. During this phase, the counselor and inmate develop a comprehensive aftercare plan that will help support sobriety upon release. The Phase III curriculum consists of relapse prevention, peer sponsoring and a series of videotapes, lectures and discussions on returning to the streets.

Instrumentation and Data Collection

Six instruments were chosen for use in the evaluation as pre- and post assessments to determine change over the course of the TOW program in areas such as criminal thinking, cognitive abilities, perceived social support, and readiness for change. The instruments used are valid and reliable and measure: subject life history; substance use/abuse; mental health and personality characteristics; criminal behavior and attitudes; social support; and involvement in education/employment and therapeutic activities. Criteria for selecting instruments included the documented reliability and validity, ease of administration, amount of training required, potential for dual clinical and evaluation use, and duplication of existing program instruments. All instruments were administered at the intake and discharge interviews as follows.

- An Intake Packet was administered to subjects during the first week of the program as part of orientation. The instruments in the Intake Packet contain Likert-type scale self-report questions and were completed by the inmates during orientation.

- The *Addiction Severity Index (ASI)* was administered by trained staff shortly after the completion of the Intake Packet. The ASI is a structured interview that assesses medical status, employment status, family relationships, psychiatric status, drug and alcohol use, legal status, and family history. The ASI was given shortly after the prisoner arrived in the TOW program by a treatment counselor. The intake and ASI instruments were used to build a profile of who is entering the TOW program and, when used in conjunction with recidivism information, are used to address research question number four.

- The Discharge Packet was administered to subjects at the end of Phase III, the final phase of the TOW program, and is a duplicate of assessment instruments found in the Intake Packet. Analysis of the pre-post changes address research question number two.

- A phone interview was conducted on 31 subjects who agreed to participate at least six months following their release from the Clarinda facility. The phone interview consisted of a subset of the ASI questions and the Intake Packet. The small number of follow-up phone interview participants precludes any kind of generalization back to the TOW population, therefore no detailed analyses or discussion are included in this summary.

- Recidivism data were gathered during January, 2001 by querying the Department of Correction's ASIS computer data base to gather further demographic information on each subject and to determine recidivism rates of the participants. These data were collected for two purposes: 1) to describe the TOW population in greater historical detail; and 2) to determine who is considered by the Clarinda facility to be a success. Both of these purposes address research questions two and four.

Subjects

A total of 351 subjects completed the Intake Packet, ASI, and Discharge Packet during a single admission to the TOW program. It is important to note that this sample of 351 subjects represents people who have completed the entire TOW program. TOW dropouts and expulsions were not followed.

Results

TOW Participants

- The average age was 31.6 (SD = 7.8) years old with a range of 17 to 54 years.

- The average IQ was 96.8 (SD = 12.1) and ranged from 65 to 127. Nearly one in six had an IQ below 85.

- The average reading level was 9.9 (meaning the ninth month of the ninth year of school; SD = 2.6) with a low of 2.0, and 15.1% of subjects read at a sixth-grade level or below.

Prior Criminal History

- The average length of the current incarceration before reaching TOW was 21.5 months (SD = 69.3) ranging from less than a month up to ten years. The median length was twelve months.

- The average number of criminal convictions prior to TOW was 3.4 (SD = 2.8) ranging from one to 20. Crimes are delineated as follows: subjects average 1.4 misdemeanors ranging from zero to 17, and 2.1 felonies ranging from zero to nine.

Substance Use History

- A majority of subjects (75%) used multiple substances. The average subject used 3.7 different substances with one person reporting using ten.

- Nearly three fourths (72.7%) of TOW subjects reported in their Intake Packet that they had attended some sort of self-help group at some point in their lives.

Pre-Test to Post-Test Changes

The Social Attitude Survey, designed by the Center for Action Research at the University of Colorado, allows for an individual to be assessed in multiple cognitive areas. The instrument measures cognitive skills and attitudes on a variety of dimensions, and demonstrates changes in those over time. The data from this instrument was analyzed to measure intermediate changes in inmate skills and abilities. The following findings illustrate the cognitive changes that occurred as a result of the TOW program as indicated by differences reflected in responses to questions at intake and discharge.

- A large amount of cognitively deficient thinking exists, along with a great deal of criminality. Fourteen of the 16 subscales show deficiency percentages greater than 50% on the Pre-Test and eight of 16 are higher than 90%.

- Of the eight significant changes, six show that TOW subjects are getting more cognitively deficient rather than less in these areas as they proceed through TOW.

- The four most significant changes occurred in scales that measure attitude with two changes in the desired direction. The two undesired changes appeared in *Attitude Toward Police* and *Attitude Toward Judicial System*, which may be a reflection of further experience with the criminal justice system. The two most significant changes, both desired, occurred in *Attitude Toward Crime* and *Attitude Toward Drugs,* two areas that the TOW program targets heavily.

- It is interesting to note that *Attitude Toward Drugs*, which measures whether using drugs is right or wrong, and *Drug Total*, which measures tolerance for the use of illegal drugs, changed significantly in opposite directions. Thus, inmates as a group thought drug usage is wrong, but, at the same time, indicated a negative belief in the validity of drug laws.

Recidivism

The analyses in this section focus on recidivism. The number of subjects included total 306. The additional 45 subjects who completed all of the assessment instruments were still waiting to be released as of January 31, 2001 and therefore are not included in the following analyses.

- Approximately one quarter (24.2%) of subjects (N=74) returned to prison following release. It is important to note that Iowa has the second highest recidivism rate in the nation: 67% of the state's paroled felons reoffend within 18 months (Restorative Criminal Justice Institute of Iowa).

- The average length of time between completing the TOW program and release from prison is 137 days (SD = 106.0), and ranges from one day to 662 days. A total of 26.8% of subjects waited longer than 180 days for release.

- The mean length of time between Clarinda release and the recidivism check conducted by the Consortium is 429 days (SD = 194.9) with a range from 29 to 828 days. Most subjects (86.3%) had at least six months between release and the recidivism check.

- The average number of days to recidivism is 232, with a range of three days to 672 days.

The following findings are statistically significant predictors of recidivism. Each was further tested using logistic regression to control for the number of post-release days in the community and remained significant.

- The Consortium examined the ASI indicators of past psychiatric history and found three that were statistically significant. Chi-square analyses show that subjects who report receiving past *psychiatric treatment* (N=136) recidivate at a 30.2% rate while those who do not (N=165) recidivate at 19.4% ($X^2 = 4.69$, DF=1, $p<.05$). Subjects who report receiving a previous *psychiatric diagnosis* (N=85) recidivate at a 36.5% rate while those who do not (N=217) recidivate at 19.8% ($X^2 = 9.16$, DF = 1, $p<.01$). Subjects who report having taken psychiatric medication (N=92) recidivate at a 37% rate while those who do not (N=206) recidivate at 19.0% ($X^2 = 11.17$, DF = 1, $p<.001$).

- Younger subjects tend to recidivate at a higher rate than older subjects. When inmates are divided into two groups, chi-square analysis shows that those 21 and younger (N=30) recidivate at a 43.3% rate while those older than 21 (N=276) recidivate at a 22.1% rate ($X^2 = 6.7$, DF = 1, $p<.01$). To distinguish older and younger inmates, TOW staff operationally defined "young" as age 21 and younger. This definition was used in related analyses in this report.

- Chi-square analysis shows that subjects with a lower IQ recidivate at a lower rate than subjects with a higher IQ. Inmates with an IQ lower than 85 (N=45) recidivate at an 11.1% rate while those with an IQ of 85 or above (N=242) recidivate at a 27.3% rate ($X^2 = 5.3$, DF = 1, $p<.05$). A score of 85 (one standard deviation below the mean) provided the assumption that those with low IQs may have had a harder time understanding the TOW curriculum. Surprisingly, this analysis shows the opposite result: those with lower IQs recidivated at a lower rate.

- The cognitive scales "Attitude Toward Police" and "Attitude Toward the Judicial System" show the two most significant changes from pre- to post-test. A chi-square examination of these scales indicates a significant relationship between the pre-test score of each scale and recidivism. Of subjects who leave TOW and recidivate, 24.6% enter TOW with a cognitive deficiency in "Attitude Toward Police" compared to 39.8% of subjects who do not recidivate ($X^2 = 5.22$, DF = 1, $p < .05$); and 15.9% enter TOW with a cognitive deficiency in "Attitude Toward the Judicial System" compared to 34.1% who do not recidivate ($X^2 = 8.30$, DF = 1, $p < .01$). This means that inmates who enter the program more deficient in these areas do better upon release.

Conclusions

Inmate Changes

- Pre- to post-test cognitive change instruments show that inmates enter the TOW program with deficiencies in multiple areas of cognition and exit the program without making a great deal of progress correcting these deficiencies. The four most significant changes do show an interesting and unexpected pattern. Inmates appear to enter the TOW program with a relatively low degree of deficiency in the "Attitude Toward Police" and the "Attitude Toward the Judicial System" subscales. By the time they exit the program these deficiencies have grown significantly, suggesting that something about the TOW experience is causing inmates to feel worse about the correctional system than they did going into TOW.

- Inmates appear to be making progress toward becoming less deficient in attitudes regarding both crime and drugs, which is a desired outcome of the TOW program.

- For future studies, the availability of a control group is vital for making causal inferences about changes in inmates due to program. Prison programs often need to be dynamic because of the realities of the prison environment. Despite the best assurances, randomization and use of control groups may not be feasible. Consequently, alternatives such as waiting list controls may serve as an option.

Recidivism

- Inmates with past psychiatric problems are recidivating at a much higher rate than those without. Perhaps a program component should be added to treat inmates with dual diagnosis disorder. Furthermore, increased post-release case management and community resources should be examined.

- It is interesting that the Parole Board Risk Score, a factor used by parole boards in determining readiness for release, does not appear to predict recidivism in the TOW population. This finding should be explored further.

- The finding that subjects with lower IQs and reading levels appear to cope well when released suggests that the TOW curriculum is not too difficult for these populations.

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Research Questions

The TOW project was undertaken to answer the following four research questions:

1. What services are provided to which types of inmates? Knowing what treatment is received and how it changes over time provides documentation for the TOW program, and how it is constantly modified.

2. Does the program accomplish its stated intermediate goals (i.e. influence attitude change) regarding substance abuse? Knowing how inmates change from the beginning of TOW treatment to the end allows treatment staff to identify areas of the curriculum that produce desired effects and areas in which the curriculum is lacking and needs modification.

3. Are there differences between clients that complete the cognitive unit program at TOW versus the two 12-step-based units? The initial design of the evaluation planned to use a comparison group of TOW inmates enrolled in a cognitive version of TOW. This comparison group was not available because the curriculum took longer to implement than originally planned, the curriculum changes were not as extensive as originally planned, and the program was discontinued shortly after implementation.

4. Are certain types of clients better served by the TOW program than others? Knowing who succeeds and who fails allows the judicial system to better match inmates with treatment resources. It also allows prison treatment staff to focus attention on those who may need it more.

Literature Review

Current research demonstrates the need and importance of intensive drug and alcohol treatment programs (such as the TOW program) for the Nation's inmate population. According to the U.S. Department of Justice, correctional systems nationwide are experiencing ever-increasing numbers of drug offenders. The Iowa Department of Corrections has seen the prison population grow by nearly 400% in the past 10 years to a total exceeding 8,000. Much of the increase is due to legislative decisions in the early 1990s creating harsher penalties for drug offenses, and longer sentences for a variety of criminal offenders.

Substance use disorders are endemic among offenders. In the NIMH-directed Epidemiologic Catchment Area (ECA) survey, 72% of institutionalized persons surveyed had a lifetime

addictive disorder, a rate more than twice that found in the general population; the figure was 82% for those in prison settings (Regier et al., 1990). The high rate among inmates was primarily attributable to a very high (72%) lifetime prevalence of substance abuse, in which 56% had an alcohol addiction and 54% had another drug disorder. The ECA survey also found that the co-occurrence of mental and addictive disorders was highest in the prison population among inmates diagnosed with antisocial personality disorder, schizophrenia, or bipolar disorder.

Nearly 50% of inmates in State and Federal prisons in 1997 reported using drugs or alcohol while committing their offense, and about one in six inmates committed crimes to obtain money for drugs (SAMHSA, 2000). According to a Federal Bureau of Prisons (BOP) study, during 1997, there were approximately 5.6 million adults – 2.1% of the Nation's population –under correctional supervision (incarceration, probation, or parole). In 1995, drug offenders accounted for 23% of the State prison population, up from 6% in 1980, and 60% of the Federal population in 1997, up from 25% in 1980. This increase in the drug offender prison population mirrors the steady increase in arrests for drug offenses. The Department of Justice and the National Center on Addiction and Substance Abuse (CASA) estimate that from 60% to 80% of the Nation's correctional population have used drugs at some point in their lives, which is twice the estimated drug use of the total U.S. population (35%).

Research findings on the effectiveness of drug treatment offer hope that recidivism can be reduced (Travis, 2000.) One such treatment that is becoming more popular is the therapeutic community (Kennard, 1998), which provides the opportunity for intensive support that is difficult to duplicate in outpatient settings (Wexler, 1995), and has been shown when used in a prison setting to reduce postrelease rearrest rates (Pelissier et al., 2001). Theraputic communities in prison settings have also been shown to decrease illicit drug use among inmates while incarcerated (Prendergast, Farabee, & Cartier, 2001), and to significantly lower rates of postrelease drug relapse (Inciardi et al., 1997). Among the most important predictors of postrelease drug usage are length of stay in program and education (Wexler, 1990; Cutter et al., 1977).

General Barry McCaffrey, Director of the White House Office of National Drug Control Policy, stated that the BOP study showing successes for inmates in treatment programs "proves the need to attack drug crime with treatment programs. The results say loud and clear that intensive, institutional drug treatment, when followed by structured transitional support and supervision, makes our communities safer and gives offenders a real opportunity to turn their lives around."

According to SAMHSA survey findings, 173,000 individuals or about 10.5% of the 1.6 million adults and juveniles in the facilities surveyed were in substance abuse treatment in those institutions that provided treatment. More than 12,500 inmates received treatment in federal prisons; 99,000 in state prisons; 34,000 in jails; and about 27,000 residents in juvenile facilities.

Methodology

Program Description

"The Other Way" (TOW) program is an intensive residential substance abuse treatment program housed at the Clarinda Correctional Facility (CCF) in Clarinda, Iowa. The program currently

employs 15 full-time counselors to provide comprehensive substance abuse treatment services in three dedicated treatment units totaling 240 treatment beds. The program is licensed by the Iowa Department of Public Health, Division of Substance Abuse and Health Promotion, and was funded during the evaluation period in part through the National Institute of Justice (NIJ) Residential Substance Abuse Treatment for State Inmates (RSAT) program administered through the state of Iowa's Governor's Alliance for Substance Abuse (GASA).

Inmates are referred to this program if they have an identified need for residential level substance abuse treatment and are within twelve months of release consideration. All inmates in the state of Iowa are initially housed at the Iowa Medical and Classification Center (IMCC) at Oakdale, IA. While at IMCC, they are given a substance abuse evaluation and referred to the TOW program based upon this evaluation.

The TOW program operates as a three-phase modified Therapeutic Community within a medium secured correctional facility. It is an intensive six-month long program that works with inmates to identify the causes of their addictive behaviors and encourages changes in unacceptable behaviors and criminal thinking. Participation in the program is voluntary. In order to continue in the program the inmates must adhere to all program, facility and Department of Correction rules and demonstrate progress in treatment. Inmates are required to participate in all treatment activities and they are expected to strictly follow all Unit and Program rules. A variety of treatment modalities are used in the program. Those most frequently used include: 1) peer encounter groups; 2) social skills training; 3) cognitive therapy; 4) problem-solving skills training; 5) education; 6) anger management; 7) relapse prevention; and 8) group processes. Some are used in the program for all inmates; others are specific to inmates as identified by the individualized treatment plan developed in Phase I. Inmates also participate in educational classes (GED), psychological services, and vocational counseling services as these needs are identified.

Inmates enter the program at the first phase and progress through the second and third phases consecutively. All three phases require participation in all treatment activities and progression is based on staff recommendation.

Phase I (Orientation) is a highly structured orientation phase that is educational in nature. This phase is approximately twenty days in length. As new members of the treatment community, the inmates are encouraged to meet other community members and develop an understanding of the rules and expectations of the program. A peer sponsor is assigned to each new inmate and assists in getting acquainted with the treatment unit rules and regulations. Phase I inmates have a very structured schedule and few privileges. The two major tasks of this phase are to: 1) help the inmates adjust to a residential treatment program; and 2) break through denial and minimization which may still exist regarding addiction. During Phase I, the staff completes a comprehensive assessment with inmates in order to develop individualized and culturally-specific treatment plans. Inmates complete a substance abuse education program that focuses on the addiction process including the physiological effects and the impact on health. After successful completion the inmates progress to Phase II.

Phase II is the main treatment phase of the program and is of an indeterminate length. Progression to Phase III depends on successful completion of assignments and counselor recommendation. The daily schedule of Phase II is highly structured with therapy as the focus. During this time inmates continue to learn about the recovery process by identifying deficiencies in life management skills and errors in thinking that impact their life and make it difficult to manage various situations. Phase II takes place in a safe therapeutic environment where inmates are expected to accept new behaviors and techniques that will facilitate and maintain the recovery process. Throughout this phase inmates provide feedback to one another. Self-discipline and acceptance of authority continue to be primary objectives during this phase. Inmates are expected to assume more personal risk in regard to self-disclosure both in a therapeutic and social setting. Inmates remain in this phase until completing specific goals and assignments whereby counselors recommend them for progression to Phase III.

Phase III is approximately seven weeks in length and focuses on preparing the inmate to succeed once released. The counselor and inmate develop a comprehensive aftercare plan during this phase. The curriculum consists of relapse prevention, peer sponsoring and a series of videotapes, lectures and discussions on returning to the streets. The system is structured so that inmates enter the TOW program toward the end of their sentence with the goal of being released on parole within four to twelve weeks of completing the program.

Instrumentation

The Iowa Consortium worked extensively with the Clarinda TOW treatment staff to identify valid and reliable instruments that measure: substance use/abuse; mental health and personality characteristics; criminal behavior and attitudes, social support; and involvement in education/employment and therapeutic activities. The instruments were used to measure the inmates longitudinally on variables relevant to the TOW program goals. Criteria for selecting instruments include the reliability and validity of the instruments, ease of administration, amount of training required, potential for dual clinical and evaluation use, and duplication of existing program instruments.

All instruments were administered at the intake and discharge interviews. Program staff were trained in the data collection and informed consent procedures, and were monitored on-site and by the Consortium project manager. Essentially, the same instruments were used at follow-up although more modified for telephone interviewing.

The following instruments were selected for inclusion in the intake, discharge and follow-up assessments:

- The Addiction Severity Index (ASI), McLellan, 1979 is a structured clinical interview that assesses the respondent on seven different areas: medical status, employment/support status, drug and alcohol use, legal status, family history, family and social relationships, and psychiatric status. The ASI is designed to measure activity in the respondent's lifetime and during the past thirty days on many of the questions, particularly on the drug and alcohol use, crime, and psychiatric sections. The ASI identifies critical areas of patient need and is useful for treatment planning and monitoring. Because of its use as a research instrument, the ASI has undergone rigorous validation and has been found to have high reliability and validity.

- The Colorado Cognitive Assessment Questionnaire, Center for Action Research, 1991 measures cognitive skills and attitudes on a variety of dimensions, and demonstrates changes in those over time. The data from this instrument will primarily be used to measure intermediate changes in inmate skills and abilities. The Consortium renamed this instrument the "The Social Attitude Survey" for the purpose of the evaluation.

- Circumstances, Motivation, and Readiness (CMR) Scales for Substance Abuse Treatment. CMR Prison Intake Version. George De Leon, Ph.D. et al. (1993). It is a self-administered Likert scale that assesses the inmate in three areas regarding feelings about treatment (circumstances, readiness and motivation). The National Evaluators recommended this instrument for use. This instrument allows the Consortium to examine the relationship between treatment readiness and treatment outcomes.

- The Social Provisions Scale (SPS), Russell and Cutrona, 1987 consists of 24 Likert scale items that assess important properties of the subject's interpersonal relationships. The scale also determines the individuals' current perception of the influence of significant others and perceived social support.

- Self-Help Questionnaire, Patterson, 1993 was developed to measure the number of Alcoholics Anonymous/Narcotics Anonymous/Other support meetings attended, use of sponsor and peer contracts, and related variables.

- The STEPS Questionnaire, Francis Gilbert et al, 1985 is designed to measure attitudinal congruence (agreement) with the first three steps of the Alcoholic Anonymous' twelve steps. The author labeled the three sub-scales as "powerlessness" (powerlessness over alcohol use and life), "higher power" (use of a Higher Power as a crucial element in recovery), and "surrender" (willingness to turn one's life over to a Higher Power to achieve recovery). The Consortium renamed this instrument the "Life Attitudes Related to Alcohol/Drug use" for the purpose of the evaluation.

Data Collection

Data were collected to examine the inmates who participated in the TOW treatment program and address the research questions described earlier. Data were collected at five different points during the TOW evaluation. The evaluation used a series of assessment instruments to determine: subject life history; subject lifetime and 30-day psychiatric and substance-abuse experiences; and subject change over the course of the TOW program in areas such as criminal thinking, cognitive abilities, perceived social support, and readiness for change.

- An Intake Packet was administered to subjects during the first week of the program as part of orientation. The instruments in the Intake Packet consist of Likert-type scale self-report questions and were completed by the inmates during orientation.

- The *Addiction Severity Index (ASI)* was administered by trained staff shortly after the completion of the Intake Packet. The ASI is a structured interview that assesses medical status, employment status, family relationships, psychiatric status, drug and alcohol use,

legal status, and family history. The ASI was given shortly after the prisoner arrived in the TOW program by a treatment counselor. The intake and ASI instruments were used to build a profile of who is entering the TOW program and, when used in conjunction with recidivism information, are used to address research question number four.

- The Discharge Packet was given to subjects at the end of Phase III, the final phase of the TOW program, and is a duplicate of the opinion-based assessment instruments found in the Intake Packet. The evaluation uses pre- and post-testing to determine subject change over the course of the TOW program in areas such as criminal thinking, cognitive abilities, perceived social support, and readiness for change. These changes address research question number two.

- A phone interview was conducted on subjects who agreed to participate at least six months following their release from the Clarinda facility. The phone interview consisted of a subset of the ASI questions and the Intake Packet. The telephone interviews gathered detailed information on subjects' post-TOW experiences regarding substance use, mental health, and adjustment. The phone interviews lasted approximately one hour and were conducted by a trained Consortium interviewer who telephoned inmates who had previously agreed to be contacted.

- Recidivism data were gathered during January, 2001 by querying the Department of Correction's ASIS computer data base to gather further demographic information on each subject and to determine recidivism rates of the participants. These data were collected for two purposes: 1) to describe the TOW population in greater historical detail; and 2) to determine who is considered by the Clarinda facility to be a success. Both of these purposes address research questions two and four.

Subjects

A total of 351 subjects completed the Intake Packet, ASI, and Discharge Packet during a single admission to the TOW program. A total of 792 inmates completed at least one of the instrument packages, but this report centers around only the people who completed all three instruments. Reasons for non-completion of the entire assessment package include the following:

- Since the TOW program is six months long, there were a number of subjects who were admitted before the Intake Packet was in place and were administered the Discharge Packet only.

- The ASI required staff training and a practice period before it was given as part of the intake procedure, so some subjects were given an Intake and Discharge Packet but did not receive the ASI.

- Anyone who left the program prior to completion took both an Intake Packet and an ASI, but not a Discharge Packet. Reasons for early exit include: voluntarily quitting and returning to the general population, early release from prison, and removal from the program for disciplinary purposes.

- There were occasions where TOW staff did not administer one of the three instrument packages within the necessary time parameters and the opportunity for those data was lost.

One hundred fifiteen subjects left the TOW program before completion. Numbers on the other categories were not recorded.

It is important to note that this sample of 351 subjects represents people who have completed the entire TOW program. TOW dropouts and expulsions were not followed.

A total of 31 subjects completed the follow-up phone interview and are discussed in a separate section of this report.

Program Modifications

The evaluation began in October, 1997 after TOW was awarded RSAT funding from the National Institute of Justice (NIJ). Prior to the start of the evaluation, the program was required to implement changes to comply with award conditions. Two of the most notable changes were the change in program length and separation of inmates from those in the general prison population. Prior to the RSAT award, the TOW program was four months long. After the receipt of the RSAT funding, the length of the program increased to six months as required by the grant. In addition, all program participants were moved to three TOW dedicated units separate from the general population for housing, programming and all other activities including meals, education and recreation. This separation allowed TOW participants to interact only with those inmates in the program. The goal was to create a supportive environment that emphasized treatment goals without the influence of those that were not involved in the program.

Throughout the evaluation period, there were few changes made to the program. The program operated as described in the Program Description section of this report with a few exceptions. The few noteworthy changes that occurred are summarized below.

Cognitive-Based Treatment

In 1998, the curriculum was changed in one of the three TOW-designated units to a more cognitive treatment mode. Though no formal cognitive-based curriculum was introduced, group sessions, assignments, and educational activities were based on cognitive theories and practices. Program administrators initially chose to change the programming on only one of the units in order to pilot it and determine if there were any improvements before restructuring the entire program curriculum. The cognitive components were incorporated into the first two phases of the treatment program. The goals were to: assist inmates in looking at specific criminal thinking patterns; examine how these patterns relate to criminal behavior and substance use history; and assist the inmate in developing new thinking patterns and skills. The program incorporated specific lectures and exercises that addressed criminal thinking patterns.

Continuing Care Program

In 1998, a continuing care program was added for inmates who completed the program and were awaiting release. The program was terminated in 2000, due to limited resources. The program

was specifically developed for chemically dependent criminal offenders, since most offenders suffer from chemical dependency and antisocial (or criminal) personality disorder. The goal of the program was to reinforce their newly acquired skills and to minimize any potential negative impact of the general prison population on their recovery. The time period prior to release varies and may be weeks to months in length. During this pre-release time frame, inmates attended a group session once a week that was led by a state certified addictions counselor. Prior to this time, the only treatment available during the period between program completion and release was self-help programs such as Alcoholics Anonymous and Narcotics Anonymous.

The program was titled "Strategic Continuing-Care Treatment Plan" and the curriculum addressed three components of addiction: 1) Chemical Dependence; 2) Chemical Dependence-Relapse; and 3) Antisocial Personality Disorder. Inmates participated in a combination of pre-tests, reading assignments, journal writing exercises, post-tests, group and individual therapy sessions, psycho-educational sessions, and supervised study. The continuing-care program was constructed as a modular system where the inmate completed a set of modules on a topic and then moved on to the next topic.

Staff Turnover

There was considerable staff turnover during the period of the evaluation. There are fifteen full-time counseling positions in the TOW program. Throughout the evaluation, twenty-nine people were hired and fifteen left. Those counselors that terminated left for various reasons. Some were promoted through the Department of Corrections and others left to pursue a career outside of the correctional system.

Another significant program change was the resignation of the TOW program director in August, 1999. The program director had been instrumental in both securing funding and implementing the program. His departure resulted in a modification of the project timeline, as it was necessary to put some of the activities on hold until a replacement was hired and trained. During the interim, the treatment director for the all the programming of the Clarinda Correctional Facility took on the responsibility of the TOW evaluation activities. A replacement program director was hired in November, 1999.

Results

Analyses are divided into the following four categories:

- Sample Population Characteristics. This information describes TOW program participants and is used to address research questions one and four.

- Pre- to Post-Test Changes. These analyses examine the difference in responses from pre- to post-test to gauge changes in subject attitudes and are used to address research questions two and four.

- Recidivism Rates. These analyses focus on who returns to prison after release from the TOW program and are used to address research question four.

- Follow-Up Phone Interview. These analyses examine the results of the six-month phone follow-up interview and are used to address research question two.

Sample Population Characteristics

The following demographic data describe the TOW subjects:

- The average age was 31.6 (SD = 7.8) years old with a range of 17 to 54 years.
- Race was distributed as follows: White, 72.7%; African American, 19.7%; Hispanic, 3.7%; American Indian, 2.9%; Asian, 0.9%; and Other, 0.3%.
- The percentage of subjects with a high school diploma or GED was 73.8%, with only 2% completing post-high school education.
- The average IQ was 96.8 (SD = 12.1) and ranges from 65 to 127. Nearly one in six had an IQ below 85.
- The average reading level was 9.9 (meaning the ninth month of the ninth year of school; SD = 2.6) with a low of 2.0, and 15.1% of subjects read at a sixth-grade level or below.
- Relationship status: 48.7% of subjects have never been married, 26.5% were married at the beginning of TOW, and 24.8% have been divorced, separated, or widowed and have remained unmarried.
- Work status: 77% of subjects were laborers before becoming incarcerated with much of their employment coming from construction and roofing.

Prior Criminal History

The following data describe the criminal and incarceration history of TOW subjects before entering the TOW program. These data include all criminal activity documented in the DOC computer database committed by subjects up to and including the offense that resulted in incarceration and TOW participation.

- The average length of the current incarceration before reaching TOW was 21.5 months (SD = 69.3) ranging from less than a month up to ten years. The median length was twelve months.
- The average number of criminal convictions prior to TOW was 3.4 (SD = 2.8) ranging from one to 20. Crimes are delineated as follows: subjects average 1.4 misdemeanors ranging from zero to 17, and 2.1 felonies ranging from zero to nine.
- Targets of crime are as follows: 37.3% of subjects committed at least one crime against people, 67.5% committed at least one crime against property, and 53.6% committed at least one crime categorized as chemical, meaning drug related. It is hard to categorize whether a crime is drug related based only on its criminal code. For example a crime

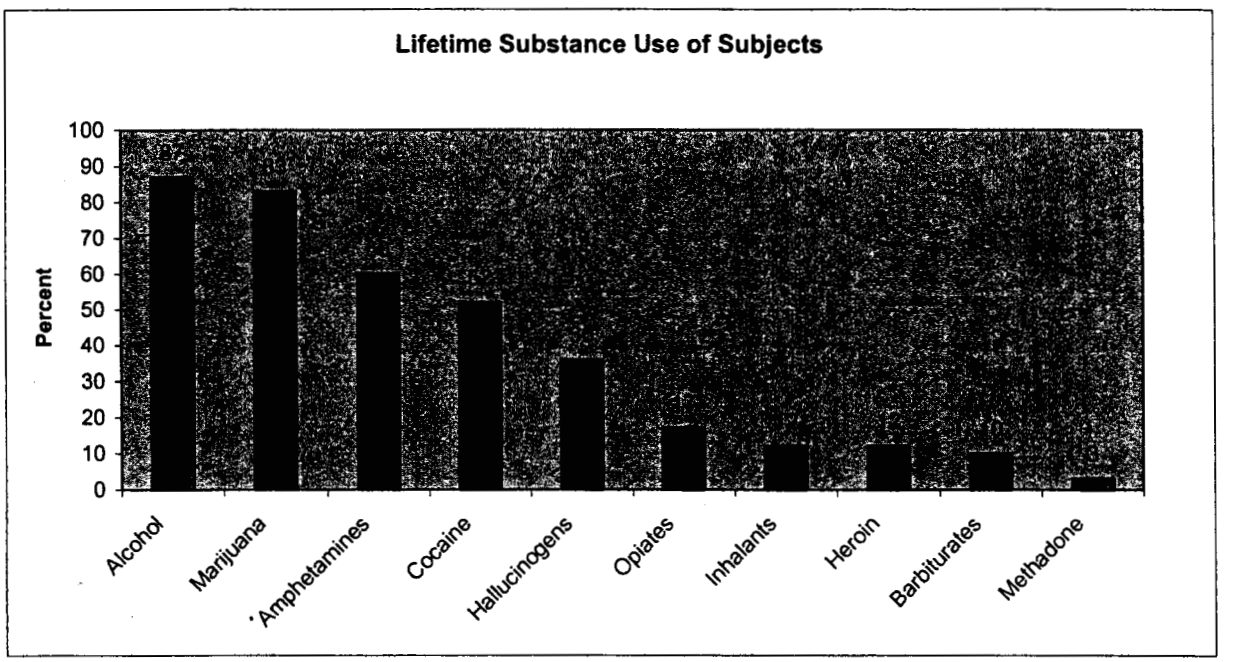
committed against property could very well have been done for money to buy drugs which would not show up in this categorization scheme.

- The felonies are delineated as follows: 66.1% committed a Class D felony; 51.9% committed a Class C felony; 2.1% committed a Class B felony; and only one subject committed a Class A felony.

- The misdemeanors are shown as follows: 40.7% of subjects committed an aggravated misdemeanor; 31.6% committed a serious misdemeanor; and 5.4% have committed a simple misdemeanor.

Substance Use History

The following chart details the percentage of TOW inmates who have ever regularly used a particular substance. Regular use, according to ASI coding instructions, is a frequency of three or more times per week for approximately six months, or any use that results in compromising normal activities.



Substance	Age	SD
Alcohol	13.3	3.9
Marijuana	14.2	3.3
Inhalants	15.5	5.3
Hallucinogens	17.0	3.7
Barbiturates	18.7	5.6
Amphetamines	20.5	6.1
Cocaine	20.7	6.1
Opiates	20.8	6.5
Methadone	21.0	5.9
Heroin	21.1	5.9

A majority of subjects (75%) used multiple substances. The average subject used 3.7 different substances with one person reporting using all ten. The average age of first use of the above substances is illustrated in the chart at left (sorted by the age at which the substance was first used):

Organization	%
Alcoholics Anonymous	65.0
Narcotics Anonymous	52.7
Cocaine Anonymous	7.1
Rational Recovery	3.7
Secular Organization for Sobriety	2.3
Alcoholics Victorious	1.7
Other Self Help Organizations	7.1

Nearly three fourths (72.7%) of TOW subjects reported in their Intake Packet that they had attended some sort of self-help group at some point in their lives. The chart on the left shows which groups had been attended:

Pre-Test to Post-Test Changes

The Social Attitude Survey was designed by the Center for Action Research at the University of Colorado and allows for an individual to be assessed in multiple cognitive areas. The scales include the following assessments:

Access to Criminals
Perceive opportunity and ability to engage in criminal acts, e.g., knowing where to "fence" stolen property, or knowing someone who would help plan and perpetuate a crime.

Attitude Toward Crime
Belief that selected criminal acts are morally wrong.

Attitude Toward Drugs
Belief that marijuana, excessive use of alcohol, and use of harder drugs is wrong.

Attitude Towards Judicial System
(Lack of) respect for and faith in judges and courts.

Attitude Towards Police
Self Explanatory

Criminal Rationalization
Acceptance of excuses and justifications for committing criminal acts, e.g., "Suckers deserve to be taken advantage of."

Drug Total
Tolerance for the use of illegal drugs; belief in the validity of drug laws.

Empathy

External Influence
Perceived importance of others' opinions in making decisions.

Normlessness
(Lack of) belief that it is worthwhile to follow social norms; belief that one can succeed only by breaking the rules.

Peer Influence
Willingness to commit criminal or deviant acts in order to be popular with one's friends, or to be part of the crowd.

Positive Labeling
Perception of how one's friends would describe one.

Powerlessness
Perceived lack of control over one's own destiny.

Problem Solving
Perceived ability to logically work through a problem and make effective choices.

Self Control
Individual's perceived ability to control his temper, to act with restraint when provoked.

Victim Awareness
Sympathy for crime victims versus blaming victims for the crimes committed against them.

The following chart illustrates the cognitive changes that occurred as a result of the TOW program as indicated by differences reflected in responses to questions at intake and discharge. The percentages in columns three and four refer to the percent of subjects, determined by the instrument, to be deficient in a particular subscale.

In order to be included in the following analysis, which used McNemar's test for the significance of changes, subjects must have completed all the questions on a particular scale in both the pre- and post-test. Those who did not were discarded from the analysis. Reasons for not completing a question include skipping the question or answering in an invalid manner such as circling multiple responses.

Cognitive Deficiencies in the TOW Sample

Cognitive Scale	N	Pre-Test %	Post-Test %	Change %	
Self Control	342	88.6	89.7	1.1	
Normlessness	346	85.0	92.8	7.8	***
Peer Influence	348	96.6	98.9	2.3	*
External Influence	345	98.0	98.8	0.8	
Powerlessness	339	99.1	99.4	0.3	
Problem Solving	337	90.8	95.9	5.1	**
Empathy	343	96.5	96.8	0.3	
Attitude Toward Police	330	34.2	46.7	12.5	****
Criminal Rationalization	340	99.7	100	0.3	
Drug Total	343	84.0	89.2	5.2	*
Victim Awareness	343	98.5	99.4	0.9	
Attitude Toward Judicial System	339	28.3	43.7	15.4	****
Access to Criminals	345	53.0	54.5	1.5	
Positive Labeling	344	92.2	89.8	-2.4	
Attitude Toward Crime	339	69.0	59.3	-9.7	****
Attitude Toward Drugs	336	82.7	72.3	-10.4	****

* Significant at the .05 level.
** Significant at the .01 level.
*** Significant at the .001 level.
**** Significant at the .0001 level.

The following conclusions can be drawn from the preceding chart:

- A large amount of cognitively deficient thinking exists, along with a great deal of criminality. Fourteen of the 16 subscales show deficiency percentages greater than 50% on the Pre-Test and eight of 16 are higher than 90%.

- Of the eight significant changes, six show that TOW subjects are getting more cognitively deficient rather than less in these areas as they proceed through TOW.

- The four most significant changes occurred in scales that measure attitude with two changes in the desired direction. The two undesired changes appeared in *Attitude Toward Police* and *Attitude Toward Judicial System*, which may be a reflection of further experience with the criminal justice system. The two most significant changes, both desired, occured in *Attitude Toward Crime* and *Attitude Toward Drugs,* two areas that the TOW program targets heavily.

- It is interesting to note that *Attitude Toward Drugs*, which measures whether using drugs is right or wrong, and *Drug Total*, which measures tolerance for the use of illegal drugs, changed significantly in opposite directions. This means that subjects as a group leave the TOW program less convinced of the validity of drug laws than when they entered, but with a greater belief that the use of illegal drugs is wrong.

Recidivism

The analyses in this section focus on recidivism, which means whether or not subjects returned to prison after completing TOW and after release from the Clarinda Correctional Facility. This definition of recidivism is used because it is the definition of success used by the TOW program.

To be eligible for inclusion in these analyses, subjects had to be released from Clarinda in one of the following capacities: placed in work release, paroled, discharged, or placed on shock probation. Once released, a subject is considered a success if he does not appear back in the State of Iowa's ASIS computer data base as having returned to custody.

The number of subjects who completed the Intake Packet, ASI, and Discharge Packet and who were released from the Clarinda Correctional Facility is 306. The additional 45 subjects who completed all of the assessment instruments were still waiting to be released as of January 31, 2001 and therefore are not included in the following analyses.

The following data detail the circumstances surrounding release from the Clarinda Correctional Facility:

- The average length of time between completing the TOW program and release from prison is 137 days (SD = 106.0), and ranges from one day to 662 days. A total of 26.8% of subjects waited longer than 180 days for release.

- Once released, 42.5% of subjects went to work release, 47.8% were released on parole, 9.5% were discharged, and one person was placed on shock probation.

- The mean length of time between Clarinda release and the recidivism check conducted by the Consortium is 429 days (SD = 194.9) with a range from 29 to 828 days. Most subjects (86.3%) had at least six months between release and the recidivism check.

- Approximately one quarter (24.2%) of subjects (N=74) returned to prison following release.

- Of those who returned to prison, 44.6% committed a parole or work release violation, 36.5% committed a new offense, and 18.9% escaped from supervision.

- The average number of days to recidivism is 232, with a range of three days to 672 days.

Though 24.2% of subjects returned to prison following release, this number may be confusing to interpret, since the number of days out of prison before the recidivism check varies from subject to subject. This means that some subjects (such as those out for more than a year) had a longer time in which to recidivate than others (such as those out for only a few months.)

The following table shows recidivism data by key time points:

Of the	305	with at least	30	days out,	1.0%	(N=3)	recidivated by the end of day 30.
Of the	299	with at least	90	days out,	6.0%	(N=18)	recidivated by the end of day 90.
Of the	264	with at least	180	days out,	13.3%	(N=35)	recidivated by the end of day 180.
Of the	184	with at least	one	year out,	24.5%	(N=45)	recidivated by the end of year one.
Of the	97	with at least	18	months out,	27.8%	(N=27)	recidivated by the end of month 18.

The following findings are statistically significant predictors of recidivism. Each was further tested using logistic regression to control for the number of post-release days in the community and remained significant.

- The Consortium examined the ASI indicators of past psychiatric history and found three that were statistically significant. Chi-square analyses show that subjects who report receiving past *psychiatric treatment* (N=136) recidivate at a 30.2% rate while those who do not (N=165) recidivate at 19.4% ($X^2 = 4.69$, DF=1, $p<.05$). Subjects who report receiving a previous *psychiatric diagnosis* (N=85) recidivate at a 36.5% rate while those who do not (N=217) recidivate at 19.8% ($X^2 = 9.16$, DF = 1, $p<.01$). Subjects who report having taken psychiatric medication (N=92) recidivate at a 37% rate while those who do not (N=206) recidivate at 19.0% ($X^2 = 11.17$, DF = 1, $p<.001$).

- Younger subjects tend to recidivate at a higher rate than older subjects. When inmates are divided into two groups, chi-square analysis shows that those 21 and younger (N=30) recidivate at a 43.3% rate while those older than 21 (N=276) recidivate at a 22.1% rate ($X^2 = 6.7$, DF = 1, $p<.01$). To distinguish older and younger inmates, TOW staff operationally defined "young" as age 21 and younger. This definition was used in related analyses in this report.

- Chi-square analysis shows that subjects with a lower IQ recidivate at a lower rate than subjects with a higher IQ. Inmates with an IQ lower than 85 (N=45) recidivate at an 11.1% rate while those with an IQ of 85 or above (N=242) recidivate at a 27.3% rate ($X^2 = 5.3$, DF = 1, $p<.05$). A score of 85 (one standard deviation below the mean) provided the assumption that those with low IQs may have had a harder time understanding the TOW curriculum. Surprisingly, this analysis shows the opposite result: those with lower IQs recidivated at a lower rate.

- Criminal offenses are categorized as chemical, person, or property offenses by the DOC. Committing a higher number of property offenses is predictive of recidivism (Satterthwaite t-test of unequal variances, $t = -3.45$, DF = 111, $p<.001$).

- The cognitive scales "Attitude Toward Police" and "Attitude Toward the Judicial System" show the two most significant changes from pre- to post-test. A chi-square examination of these scales indicates a significant relationship between the pre-test score of each scale and recidivism. Of subjects who leave TOW and recidivate, 24.6% enter TOW with a cognitive deficiency in "Attitude Toward Police" compared to 39.8% of subjects who do not recidivate ($X^2 = 5.22$, DF = 1, $p < .05$); and 15.9% enter TOW with a cognitive deficiency in "Attitude Toward the Judicial System" compared to 34.1% who

do not recidivate ($X^2 = 8.30$, DF = 1, $p < .01$). This means that inmates who enter the program more deficient in these areas do better upon release.

- Those who began using amphetamines at a younger age recidivate at a higher rate than those who began using amphetamines at an older age (Satterthwaite t-test of unequal variances, t = 2.30, DF = 101, p<.05).

- Subjects whose Social Provisions Scale score on the Pre-Test indicates a perceived lack of a nurturing environment recidivate at a higher rate than those with a higher nurturance score (Satterthwaite t-test of unequal variances, t = 3.61, DF = 115, p<.001).

- Subjects who committed more crimes before entering the TOW program recidivated at a higher rate than those with fewer crimes (Satterthwaite t-test of unequal variances, t = -2.49, DF = 115, p<.05)

The following analyses were conducted on areas of interest to the staff of the TOW program, but were not statistically significant:

- The staff at Clarinda was interested in whether members of minority racial groups recidivate at a different rate from the white majority. This was very important to them in order to determine whether TOW programming needed to be adjusted toward increased racial sensitivity. A chi-square comparison between white and African-American subjects shows no significant difference ($X^2 = 0.12$, DF = 1, p>.73). There were not enough members of other minority racial groups for analysis.

- The TOW staff expressed concern that inmates who linger in prison a long time (defined by staff as greater than 90 days) after finishing the TOW program might recidivate sooner once released, since the TOW curriculum would be stale by the time of their release. Number of days to release became non-significant (logistic regression, OR = 1.00; 95% CI: 0.999 – 1.005; Wald $X^2 = 1.29$, p>.25) once amount of time between release from prison and the recidivism sweep was taken into account. This may be due to the fact that inmates who spent more time incarcerated following TOW were more likely to have been released later in the evaluation period and therefore to have had less time to recidivate.

- There was concern that inmates with a lower reading level would not be able to get as much out of the TOW program due to its cognitive nature and would be at a higher risk for recidivism. No statistical difference was found (Satterthwaite t-test, t = -0.98, DF = 131, p>.34).

- There is no particular substance, that when used, predicts a higher rate of recidivism (Satterthwaite t-test, no t score greater than 1.14, DF = 110, p>.25).

- Number of different substances used was not predictive of recidivism (Satterthwaite t-test, t = -0.29, DF = 117, p>0.78).

- Previous involvement in self-help organizations such as Alcoholics Anonymous and Narcotics Anonymous did not predict recidivism (chi-square test, $X^2 = 0.18$, DF = 1, p> .66).

- Despite the fact that the a cognitively deficient pre-test score in the scales "Attitude Toward Police" and "Attitude Toward the Judicial System" predicted recidivism, the post-test scores in the same scales did not ("Attitude Toward Police": $X^2 = 0.67$, DF = 1, p > .41; "Attitude Toward the Judicial System": $X^2 = 0.22$, DF = 1; p > .63).

- None of the Cognitive change scores from pre- to post-test were significant, though a change in "Powerlessness" is close (Pooled t-test of equal variances, t = -1.88, DF = 293, p > .06).

- The State of Iowa uses a rating called the Parole Board Risk Score to determine recidivism risk. This score was stratified into low, medium, and high-risk groups. When comparing these three levels against recidivism using a chi-square test, no significant difference was found with the TOW program subjects ($X^2 = 0.44$, DF = 2, p>.80).

- Type of discharge (parole, probation, or work release) was not predictive of recidivism (chi-square test, $X^2 = 6.61$, DF = 2, p > .09).

- Number of lifetime person (Satterthwaite t-test, t = 1.20, DF = 126, p>0.23) or chemical (Satterthwaite t-test, t = -0.06, DF = 121, p>0.95) offenses committed was not predictive of recidivism.

- The number of disciplinary incidents during TOW was examined, but no significant difference with regard to recidivism was detected (Pooled t-test of equal variances, t = -1.51, DF = 304, p > .13).

Follow-Up Phone Interviews

A researcher from the Iowa Consortium visited the TOW program on a monthly basis to recruit subjects willing to be interviewed at least six months following their release from prison. This began in May, 1998 and continued through May, 2000 with a break from January, 1999 to April, 1999 for administrative reasons. The interview was conducted by phone and consisted of a subset of the ASI and Intake Packet questions.

TOW staff required graduates of the program to attend the recruitment sessions if possible, though attendance was not taken and there were no repercussions for not attending. Once there, subjects listened to a Consortium researcher discuss the interview and were given permission forms on which to either mark *yes* or *no* to indicate their interest. There were 242 filled-out permission forms returned at the end of the recruitment sessions. More than 242 attended, but many either kept their form or returned the blank form back to the pile from which it was distributed. Of these 242 subjects, 83.8% (N=207) agreed to participate in the phone interview.

This number was reduced as follows:

- Of the 207 subjects who agreed to be interviewed, 63 were not released from prison by the time data collection had ended.
- Of the 144 subjects left, 24 were released from prison but had not yet been out six months by the time data collection had ended.
- Of the 120 subjects left, 72 could not be located using the contact information provided on their consent form or were unavailable due to reincarceration.
- Of the 48 subjects reached, 17 declined to participate once contact was established.

In order to gather the 31 subjects documented above, The Consortium made 716 phone calls delineated as follows:

- Calls made attempting to locate subjects: 82.7% (N=592).
- Calls made checking in with a subject once he had been located in order to maintain contact: 9.5% (N=68).
- Calls made conducting the 31 interviews: 7.8% (N=56). This was necessary because eleven subjects rescheduled from one to four times when an interview had been set up.

The results of each individual phone call are as follows:

- Resulted in no answer: 50.1% (N=359).
- Resulted in talking to a contact about locating a subject: 29.5% (N=211). The contact names were obtained from the consent form completed upon agreement to be interviewed.
- Resulted in reaching the subject: 14.7% (N=105). These conversations were either related to setting up an interview, conducting the interview, or maintaining contact to increase the likelihood of locating subjects at six months following release.
- Resulted in a disconnected phone line: 4.7% (N=34).
- Resulted in reaching an answering machine: 0.7% (N=5).
- Resulted in being told that the subject did not live at that location: 0.3% (N=2).

The following data detail the living situations of the 31 subjects who consented to be interviewed at six months following their release from Clarinda. At the time of the interview:

- Nineteen subjects (61.3%) lived in a house, eleven subjects (35.5%) lived in an apartment, and one subject (3.2%) described himself as homeless.

- Twenty-one subjects (67.7%) worked full time, seven subjects (19.4%) were unemployed, six subjects (9.7%) were retired or on disability, and one subject (3.2%) was a student.

- Fourteen subjects (45.2%) lived with a partner, ten subjects (32.3%) lived with relatives, four subjects (12.9%) lived alone, two subjects (6.5%) lived with friends, and one subject (3.2%) had no stable living arrangements.

- Three subjects (9.7%) reported living with someone who has a current alcohol problem or who uses non-prescription drugs.

The following data detail the psychiatric status and adjustment of the 31 follow-up subjects:

- Six subjects (19.4%) reported being diagnosed with a psychiatric or emotional condition since being discharged from the program.

- Fifteen subjects (48.4%) reported experiencing one or more of the following: serious depression (9.7%); mood swings (29.0%); serious anxiety or tension (32.3%); hallucinations (6.5%); trouble understanding, concentrating, or remembering (25.8%); trouble controlling violent behavior (9.7%); serious thoughts of suicide (3.2%); attempted suicide (3.2%); or having been prescribed psychiatric medication (12.9%).

- Eight subjects (25.5%) reported being troubled or bother by experiencing the above symptoms.

- Ten subjects (32.3%) reported experiencing serious conflict with other people in the thirty days prior to the interview, with five subjects (16.1%) reporting that this conflict occurred with relatives and six subjects (19.4%) reporting that it occurred with non-relatives.

The following data detail the substance use experience of TOW subjects in the six months between leaving the Clarinda facility and participating in the phone interview:

- Five subjects (16.1%) reported using alcohol. No other substance usage was disclosed. This is not necessarily surprising as it was assumed that inmates would be reluctant to disclose current illegal activity over the phone.

- Twenty-six subjects (83.9%) reported participating in or attending a twelve-step program or self-help group.

Discussion and Implications of the TOW Evaluation

Programming

Frequent changes in treatment program content whether added or terminated are not adequately documented. The development of a simple protocol to document clients' experience in the TOW program and their subsequent prison experience is recommended.

Post-Release Follow-Up Interviews

Below are some considerations for performing extensive post-prison interviewing on a population similar to the TOW subjects:

- Eighteen recruiting trips to Clarinda resulted in 207 inmates willing to participate in this evaluation, but only 31 interviews were completed.
- Getting the interviews done proved to be very resource intensive, as an average of 23.1 phone calls was made in order to complete an interview.
- Not surprisingly, subjects appeared to be unwilling to disclose illegal behavior, even when it is for research purposes.

The small number of follow-up phone interview participants precludes any kind of generalization back to the TOW population, therefore no detailed analyses are included in this report.

It may be wise, when possible, to attempt an alternate method of post-release data gathering other than phone interviews, which historically have been difficult with this population. One suggestion is to collect follow-up data using parole officers as part of an institutional data collection. Questions that could be asked by a parole officer and communicated back to an evaluation team would be: continuing substance-abuse treatment involvement, employment experiences, living conditions, family issues, and adjustment problems.

Other issues related to the follow-up phone interviews:

- Living arrangements appear to be fairly well taken care of, though one subject reported being homeless.
- It appears that many of the TOW subjects have issues of a psychiatric nature following release back into the community. Perhaps aftercare resources should be directed toward community psychiatric services.

Inmate Changes

Pre- to post-test cognitive change instruments show that inmates enter the TOW program with deficiencies in multiple areas of cognition and exit the program without making a great deal of progress correcting these deficiencies. The four most significant changes do show an interesting and unexpected pattern. Inmates appear to enter the TOW program with a relatively low degree of deficiency in the "Attitude Toward Police" and the "Attitude Toward the Judicial System" subscales. By the time they exit the program these deficiencies have grown significantly,

suggesting that something about the TOW experience is causing inmates to feel worse about the correctional system than they did going into TOW.

The other interesting finding is that inmates appear to be making progress toward becoming less deficient in attitudes regarding both crime and drugs, which is a desired outcome of the TOW program.

For future studies, the availability of a control group is vital for making causal inferences about changes in inmates due to program. Prison programs often need to be dynamic because of the realities of the prison environment. Despite the best assurances, randomization and use of control groups may not be feasible. Consequently, alternatives such as waiting list controls may serve as an option.

Recidivism

The following recommendations address recidivism:

- Perhaps TOW programming should be adjusted to some degree to add a component dealing with young people or issues that may be causing inmates below 21 to recidivate at a much higher rate.

- Inmates with past psychiatric problems are recidivating at a much higher rate than those without. Perhaps a program component should be added to treat inmates with dual diagnosis disorder. Furthermore, increased post-release case management and community resources should be examined.

- Since subjects who began using amphetamines at an earlier age recidivate at a higher rate than those who began at a later age, perhaps this should be addressed in the TOW curriculum.

- It is interesting that the Parole Board Risk Score, a factor used by parole boards in determining readiness for release, does not appear to predict recidivism in the TOW population. This finding should be explored further.

- The finding that subjects with lower IQs and reading levels appear to cope well when released suggests that the TOW curriculum is not too difficult for these populations.

- In-person, follow-up on clients after discharge was difficult to accomplish in our protocol and led to very low success rates. More use of the parole data should be considered for future follow-ups with additional information collected on such items that provide a picture of social success without requiring self-incrimination by clients.

- Data collected from clients in the prison setting and follow-up through Department of Corrections parole records can be accomplished practically and lends itself to further analyses, e.g. an additional sweep for clients to find those on whom pre- and post-test data was attained but who had not been "on the street" long enough to measure their recidivism reliably.

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