Zaprimljeno: 10.02.2011. Izvorni znanstveni članak

UDK: 343.976

## CONVICTED DRUNK DRIVERS IN AN ELECTRONICALLY MONITORED HOME DETENTION PROGRAM: A THREE-YEAR STUDY ON EXIT STATUS AND SUBSEQUENT RECIDIVISM

**Sudipto Roy** 

Indiana State University
Department of Criminology and Criminal Justice

### **SUMMARY**

This study included adult offenders convicted of drunk driving, sentenced to the EMHD program, and who completed or failed to complete their sentences from the beginning of 2006 through the end of 2008 (three-year time period); afterward, the participants who successfully exited the program were followed till the end of 2009 to investigate their post-program recidivism. At a minimum, the follow-up period for recidivism was one year. Specifically, the objective of this study was to expand on the literature by focusing on the "exit status" of the convicted drunk drivers sentenced to the EMHD program during the three-year study period, and also on "recidivism" among the subjects after their successful exit from the program.

Key words: convicted drunk drivers, electronic monitoring home detention program

### INTRODUCTION

A variety of "intermediate sanctions" are used for accused and convicted offenders in the United States. "Intermediate sanctions" are conceptualized as a continuum of punishments between traditional/regular probation and imprisonment. Electronically monitored home detention (EMHD) is one of those intermediate sanctions. "Electronic monitoring, which is used to enforce the conditions of release for criminal offenders, strengthens the ability of corrections officials and law enforcement authorities to supervise offenders in the community by keeping them under closer surveillance than they otherwise could" (Barry, p. 1, 2009). In the United States, the first EMHD program for adult offenders was established by the Palm Beach County, Florida Sheriff's Department as an in-house arrest work release program in 1984 (Brown and Roy, 1995). EMHD programs are used to monitor varied types of offenders "who may be under the supervision of pretrial release, prison or jail release programs, probation, or parole" (Barry, p. 2, 2009). In several jurisdictions, convicted offenders are also placed in these programs in lieu of a jail sentence. As for offense types, these programs across the U.S. include varied types of offenders, e.g. offenders charged with as well as convicted for personal offenses, property offenses, and also drunk driving (Di Tella and Schargrodsky, 2009). These are non-residential programs. Hence, participants in these programs are allowed to stay at their own residences, continue their employment and/or education, receive treatment/counseling, and maintain their family ties (Lurigio, Olsen, and Sifford, 1999).

In the U.S., numerous research findings on the EMHD programs have been reported since the late 1980s. Individually, some of the studies "provide snapshots of the field implementation of electronic monitoring programs, delivered by a specific organization in a particular setting for a particular group of offenders" (Baumer, Maxfield, and Mendelsohn, 1993, p. 124). Also, some previous researchers included small samples of offenders (Lilly, Ball, and Wright, 1987; Charles, 1989). The majority of previous researchers focused on individual program completion percent-

ages, factors related to the participants' failure in completing their programs, and to some extent on postprogram recidivism among the participants who had successfully completed their programs. Also, some previous researchers reviewed electronic monitoring from a crime-control perspective (e.g. Barry, 2009). However, the fact remains that previous researchers have paid little attention to convicted drunk drivers sentenced to EMHD programs around USA. Only a few authors have focused on these specific type of offenders placed on EMHD programs (Barton and Roy, 2008; Roy and Barton, 2006; Minnesota Department of Corrections, 2002; Jones and Lacey, 2000). Given that context, the purpose of the present study is to concentrate on convicted drunk drivers sentenced to an EMHD program in a Midwestern county. This study included adult offenders convicted for drunk driving, sentenced to the EMHD program, who completed or failed to complete their sentences from the beginning of 2006 through the end of 2008 (three-year time period); afterward, the participants who successfully exited the program were followed till the end of 2009 to investigate their post-program recidivism. At a minimum, the follow-up period for recidivism was one year. Specifically, the objective of this study was to expand on the literature by focusing on the "exit status" of the convicted drunk drivers sentenced to the EMHD program during the three-year study period, and also on "recidivism" among the subjects after their successful exit from the program.

### PREVIOUS RESEARCH

A review of previous research indicates that the majority of these programs administered in the U.S. involve non-violent offenders and those with non-violent offense records (Barton and Roy, 2008; Finn and Muirhead-Steves, 2002; Roy, 1999, 1997; Zhang, Polakow, and Nidorf, 1995; Brown and Roy, 1995; Baumer, Maxfield, and Mendelsohn, 1993; Cooprider, 1992; Lilly, Ball, Curry, and Smith, 1992; Vaughn, 1991, 1987; Clarkson and Weakland, 1991; Kuplinski, 1990; Charles, 1989; Ball, Huff, and Lilly, 1988; Bloomberg, Waldo, and Burcroff, 1987; Lilly, Ball, and Wright, 1987). Also, some programs supervise only those offenders who are sentenced to jail for a given number of days (Roy, 1999, 1997; Lilly, Ball, and Wright, 1987). On the other hand, some programs exclude offenders who have pending charges or have records of absconding (Kuplinski, 1990). Furthermore, some programs exclude offenders who have multiple felony convictions, require in-patient substance abuse treatment, or are serving intermittent sentences (Brown and Roy, 1995).

Overall, previous researchers have focused on various aspects of these programs. For instance, they focused on these programs as viable crime control strategies, the monitoring devices, cost analysis, percentages of offenders successfully exiting these programs, factors predicting offenders' successful exit, and also post-program recidivism. Although the selection criteria vary from one jurisdiction to another, previous research reports indicate that between 57% and 92% of the offenders sentenced to these programs had successful exit (i.e. successfully completed their sentences).

- 97% in the West Palm Beach, Florida program (Lilly, Ball, Curry, and Smith, 1992)
- 94% in the Palm Beach County, Florida program (Friel and Vaughn, 1986)
- 93.5% across three programs in Indiana (Baumer, Maxfield, and Mendelsohn, 1993)
- 92% in the St. Paul, Minnesota program (Minnesota Dept. of Corrections, 2002)
- 91.4% in the Kenton County, Kentucky program (Lilly, Ball, and Wright, 1987)
- 91% in the Clakamus County, Oregon program (Rogers and Jolin, 1989)
- 90% across six programs in Virginia (Kuplinski, 1990)
- 90% in an evaluation of ten programs across the U.S. (Vaughn, 1987)
- 87% in the Harris County, Texas program (Enos, Black, Quinn, and Holman, 1992)
- 82% in the Oneida County, New York program (Brown and Roy, 1995)
- 81.6% in the Vigo County, Indiana program (Roy, 1994)
- 76% in the Vigo County, Indiana program (Barton and Roy, 2008)
- 75% in the Lake County, Indiana program (Roy, 1994)
- 75% in a national survey (Renzema nad Skelton, 1990)
- 70% in the Palm Beach County, Florida Sheriff's Department In-house Arrest Program
- (Palm Beach County, Florida Sheriff's Department, 1987)
- 57% in the Dallas County, Texas program (Enos, Black, Quinn, and Holman, 1992).

Several previous researchers have focused on "exit status" of offenders placed in these programs. For instance, results from a national survey conducted by Renzema and Skelton (1990) revealed that an offender's age and sentence length were predictive of "exit status". They reported that offenders older than 35 years of age, and offenders placed in these

programs for more than six months had successful exit compared to their younger cohorts, and offenders placed in these programs for up to six months. Although the finding on an offender's age has been confirmed in the literature (Barton and Roy, 2008; Roy, 1999, 1997, 1994; Brown and Roy, 1995; Lilly, Ball, Curry, and McMullen, 1993), the finding on an offender's sentence length from the national survey has not been supported by a number of previous studies (Roy, 1999, 1997; Brown and Roy, 1995). Several other factors have also been reported to be significantly related to "exit status", such as charge reduction (Barton and Roy, 2008), employment status (Roy, 1999; Lilly, Ball, Curry, and McMullen, 1993), gender, prior convictions (Roy, 1999; Lilly, Ball, Curry, and McMullen, 1993), income (Lilly, Ball, Curry, and McMullen, 1993), number of prior offenses, substance abuse history, prior institutional detention, and prior community corrections placement (Barton and Roy, 2008; Roy, 1997, 1994; Brown and Roy, 1995)

Furthermore, a cursory review of previous indicates that offenders placed in these programs include varied types of offenders convicted for personal offenses, property offenses, and also drunk driving. However, to date, only a handful of researchers have focused exclusively on convicted drunk drivers. The most recent one conducted by Barton and Roy (2008) examined the variables that were significantly related to successful exit from the EMHD program in Vigo County, Indiana. The authors reported that the following variables were significant predictors of successful exit from that program - age-group, charge reduction, sentence length, prior drunk driving record, prior drug/alcohol offense, and prior community corrections placement. In their study they reported that -(1) older age-group (35 years and above), (2) offenders with no charge reduction, (3) offenders placed in the program up to six months, (4) offenders with no prior drunk driving record, (5) offenders with no prior drug/alcohol related offense, and (6) offenders with no prior community corrections placement, had successfully exited the programs, compared to their cohorts.

Another study on convicted drunk drivers was conducted by the Minnesota Department of Corrections (2002). The report indicated that overall 92% of the offenders successfully exited their REAM (Remote Electronic Alcohol Monitoring) program administered for convicted DUI offenders. However, no analysis was conducted on factors significantly related to successful exit of the offenders from that program. Jones and Lacey (2000) conducted a study on repeat DWI offenders on behalf

of the U.S. Department of Transportation. Their study was a "review of the scientific literature about drivers who have been convicted more than once of driving while impaired by alcohol (DWI)" (p. iii). The focus of the review was on issues such as the role this category of drivers plays in alcohol-related crashes and their characteristics. The data were collected from 182 DWI offenders through interviews conducted at three programs – Phoenix, Arizona, Pittsburg, Pennsylvania, and the 18<sup>th</sup> Judicial District in Colorado. Participation was voluntary. Conducting an analysis on the subjects' exit status from their respective programs was not the focus of this study.

Regarding convicted drunk drivers placed in EMHD programs, Courtright, Berg, and Mutchnick (2000) investigated the factors significantly related to successful exit of the participants in the Western County, Pennsylvania program. The authors reported that employment (employed offenders had higher percentages of success than unemployed offenders), marital status (married offenders were more successful than unmarried offenders), and prior offense records (offenders with no prior had higher percentages of success than those with prior records) were significantly related to successful exit during their one-year study period. The authors had conducted an earlier study in 1997 on the same program; however, in this 1997 study, they focused on cost analysis exclusively. Lilly, Ball, Curry, and McMullen (1993) conducted a seven-year study on convicted drunk drivers sentenced to the EMHD program administered by the Pride Incorporated in Palm Beach County, Florida. The authors reported that 97% of the participants successfully completed their sentences. They also reported that gender (female offenders were more successful than male offenders), age (offenders over forty years old had more success than younger offenders), employment (employed offenders were more successful than their unemployed cohorts), and income (offenders who had more than \$ 10,000 annual income had more success than those with less than \$ 10,000 annual income) were significantly related to successful exit from that program. Also, in 1986, Tuthill examined post-program recidivism among sixty convicted drunk drivers who successfully exited the EMHD program in Lynn County, Oregon, during a one-year study period. Tuthill reported that only three participants recidivated after successfully exiting from the EMHD program; no further analysis was reported by the author.

A review of previous research on convicted drunk drivers placed in EMHD programs indicated that overall six previous studies were conducted on this type of offenders. In only three previous studies the authors reported the following factors related to successful exit of the offenders from EMHD programs – gender (Lilly, Ball, Curry, and McMullen, 1993), age (Barton and Roy, 2008; Lilly, Ball, Curry, and McMullen, 1993), income (Lilly, Ball, Curry, and McMullen, 1993), marital status (Courtright, Berg, and Mutchnick, 2000), employment (Courtright, Berg, and Mutchnick, 2000; Lilly, Ball, Curry, and McMullen, 1993), prior offense records (Courtright, Berg, and Mutchnick, 2000), charge reduction, sentence length, prior drunk driving records, prior drug/alcohol offenses, and prior community corrections placement (Barton and Roy, 2008).

As mentioned earlier, the purpose of this study was to investigate the "exit status" of the convicted drunk drivers sentenced to the EMHD program (in the Midwestern county) during the three-year study period, and also on "recidivism" among the subjects after their successful exit from the program. Hence, the outcome measures used in this study were "exit status" and "post-program recidivism". The following research questions were investigated in this study: (a) which factors were statistically significantly related to successful exit of the participants, and (b) which factors were statistically significantly related to post-program recidivism among the successful participants.

### **METHOD**

### **Data Sources and Subjects**

The data for this study were collected from the individual offender case files maintained by the County Community Corrections Office. The subjects included in this study were two hundred and four convicted drunk drivers who were sentenced to the EMHD program and completed (successfully and unsuccessfully) their sentences from the beginning of 2006 through the end of 2008 (threeyear time period); afterward, the participants who successfully exited the program were followed till the end of 2009 to investigate their post-program recidivism (the follow-up period was one year at a minimum). Detailed information regarding the subjects' prior offense history, prior sanctions/placements, and post-program recidivism was gathered from the criminal history information system maintained by the County Superior Court. "Post-program recidivism" was measured as rearrests for committing new offenses after the participants successfully exited the EMHD program during the three-year study period.

The following independent variables were used in this study - race (whites, coded 0; non-whites, coded 1), sex (male, coded 1; female, coded 0), age, education, employment (full-time, coded 0; parttime, coded 1; and unemployed, coded 2), marital status (married, coded 0; not married, coded 1), offense (drunk driving) type (felony, coded 1; misdemeanor, coded 0), charge reduction (yes, coded 1; no, coded 0), type of sentence (probation, coded 0; non-probation, coded 1; non-probation included direct commitment to EMHD in lieu of jail, and sentence modification, i.e. offenders were placed in EMHD after spending time in jail), prior drunk driving offense history (yes, coded 1; no, coded 0), other prior alcohol/drug offense history (yes, coded 1; no, coded 0), prior detention (in an institution) history (yes, coded 1; no, coded 0), prior community corrections placement (yes, coded 1; no, coded 0), and prior placement in EMHD (yes, coded 1; no, coded 0). The last one was sentence length, i.e. the number of days spent by the subjects under EMHD supervision.

The majority of the subjects were whites (84.3%), male (78%), and full-time employed (76.5%). As for age, the range was 21 to 65 years, with a mean of 35.8 years. The range of the number of years of education achieved by the subjects was 8 to 16 years, with a mean of 10.1 years. Regarding marital status, the majority of the subjects (60.3%) were not married. As for offense type, 104 subjects (51%) were felons, while the remaining 100 subjects (49%) were misdemeanants. Only 52 subjects (25.5%) had their original charge reduced. The subjects were sentenced to this program as a condition of probation (n=168, 82.4%), direct commitment (n=34, 16.7%), and sentence modification (n=2, 1%). One hundred and eighteen (57.8%) subjects had prior drunk driving records. Regarding other prior drug/alcohol offenses, the majority of the subjects (n=137, 67.2%) had no such records. Among the 204 subjects, 45 individuals (22%) had records of prior institutional detention, 101 subjects (49.5%) had records of prior placements in community corrections, and 39 subjects (19.1%) were placed in the EMHD previously. As for sentence length, the range was from 60 days to 365 days, with a mean of 160 days.

The outcome measures of this study were "exit status" and "post-program recidivism". For the purpose of data analyses, both the components were dichotomized as follows: (a) exit status – successful (coded 1) and unsuccessful (coded 0), and (b) post-program recidivism – no rearrest (coded 0) and rearrest (coded 1).

### Recoding of Independent Variables

Three continuous independent variables – age, education, and sentence length, were recoded into categories for the purpose of data analyses. Age was categorized as – (a) Age-group I (21 to 35 years, coded 1), and (b) Age-group II (36 to 65 years, coded 0). Age-group I included 110 subjects (54%). Education was dichotomized as – (a) Education-group I (high school or less, coded 1), and (b) Education-group II (more than high school, coded 0). After recoding, Education-group I included 146 subjects (71.6%). The third one, sentence length, was dichotomized as - (a) Sentence length group I (up to 180 days, coded 0), and (b) Sentence length group II (181 to 365 days, coded 1). After recoding, the majority of the subjects (n=164, 80.4%) were included in Sentence length group I. For the purpose of data analyses, employment was also dichotomized as – (a) Employment-group I (full-time employed, coded 0), and (b) Employmentgroup II (part-time and unemployed, coded 1). The Employment-group II included 48 subjects (23.5%).

### **Empirical Specifications**

Given the dichotomous coding of the outcome measures (successful/unsuccessful exit, and rearrest/ no rearrest), logistic regression was used to the factors significantly related to successful exit from the program, and also rearrest of the participants who successfully exited the program. "Logistic regression is helpful when you want to predict a categorical variable with a set of predictor variables" (Leech, Barrett, and Morgan, 2008, p. 158). Logistic regression estimates the probability that an event will occur, and identifies the statistically significant independent or predictor variables (Norusis, 1990). The probability of an event occurring (coded 1) is always made in reference to another event (coded 0). As may be recalled, all the independent variables were dichotomously coded for the purpose of data analyses.

Correlation coefficients were calculated to test for multicollinearity among the independent variables. The coefficients were uniformly small. So, all the independent variables were retained for inclusion in logistic regressions.

### **FINDINGS**

Among the 204 subjects included in this study, 157 individuals (77%) successfully exited the program. The remaining 47 subjects failed to complete their sentences. Those 157 participants who successfully exited the program were followed up through the end of 2009 for recidivism (measured as rearrests) reports.

### Successful Exit

Logistic regression was computed to assess whether the predictor variables - race, sex, agegroups, education-groups, employment-groups, marital status, offense type, charge reduction, prior drunk driving history, other prior drug/alcohol offense history, prior detention, prior community corrections placement, prior placement in the EMHD program, and sentence-length-groups, significantly predicted whether or not a participant successfully exited the program. The assumptions of observations being independent and independent variables being linearly related to the logit were checked and met. When all the predictor variables were considered together, six of those variables significantly predicted successful exit of the participants from the program – chi-square = 105.18, df = 6, N = 204, p < .001. Table 1 provides the logistic regression coefficients (B), standard errors, and odds of successfully exiting the program.

Six independent variables as shown in Table 1, marital status, charge reduction, type of sentence, age-groups, other prior drug/alcohol offense history, and prior detention (in institutions), significantly predicted successful exit among the 204 subjects. The odds ratio and significance (presented in Table 1), demonstrated how those independent variables were statistically significantly related to successful exit among the 204 subjects.

**Table 1.** Logistic Regression Predicting Successful Exit (N = 204)

Variables	В	SE	Odds ratio	Significance
Marital Status	-3.49	1.24	2.51	.005
Charge Reduction	.94	.76	2.37	.045
Type of Sentence	40	1.03	1.96	.004
Age-groups	-1.61	.81	1.67	.011
Other Prior Drug/ alcohol Offense History	1.46	.78	4.34	.051
Prior Detention	289	1.03	3.01	.004

Percent correctly classified: 85.1

Married participants had 2.5 times greater odds of successfully exiting the program than their unmarried cohorts. Regarding charge reduction, the logistic regression revealed that participants with no charge reduction had 2.3 times higher odds of successfully exiting the program than those whose charges were reduced. The third significant independent variable, type of sentence, indicated that non-probation participants (which included those placed in the EMHD as direct commitment and sentence modification), were more likely to fail in completing their EMHD sentence

es. As evident from Table 1, participants placed on the program as an additional condition to their probation sentences, had 1.96 times greater odds of successfully exiting the EMHD program, than their non-probation cohorts. Age-group was also statistically significantly related to successful exit. The age-group II (36 years and older) had 1.67 times greater odds of successfully exiting the program, compared to their younger cohorts (Age-group I; up to 35 years of age). Regarding the predictor variable, other prior drug/alcohol offense history, the Table 1 demonstrates that those participants with no such history had 4.3 times greater odds than their counterparts with such history, in successfully exiting the program. Finally, prior detention (in institution) was statistically significant predictor of successful exit from the program. The Table 1 indicates that those participants with no such records of prior detention had 3 times greater odds of successfully exiting the program, than those participants who had prior detention history.

## Post-program Recidivism among Successful Subjects

As mentioned earlier, the data on post-program recidivism among the successful subjects were collected from the criminal history information system maintained by the County Superior Court. Among the 157 subjects who successfully exited the program, 51 (about 33%) individuals were rearrested for committing new offenses during the follow-up period.

Logistic regression was conducted to assess whether the predictor variables – race, sex, age-groups, education-groups, employment-groups, marital status, offense type, charge reduction, prior drunk driving history, other prior drug/alcohol offense history, prior detention, prior community corrections placement, prior placement in the EMHD program, and sentence-length-groups, significantly predicted whether or not a successful subject committed post-program offenses. The assumptions of observations being independent and independent variables being linearly related to the logit were checked and met. When all the predictor variables were considered together, three of those variables significantly predicted post-program recidivism among the 157 successful subjects – chi-square = 114.24, df = 3, N = 157, p <.0001.

**Table 2.** Logistic Regression Predicting Post-program Recidivism (N = 157)

Variables	В	SE	Odds ratio	Significance
Marital Status	-2.41	.58	1.95	.000
Age-groups	3.04	.63	20.94	.000
Prior drunk driving history	1.84	.61	6.27	.003

Percent correctly classified: 83.2

As evident from Table 2, three predictor variables - marital status, age-groups, and prior drunk driving history, significantly predicted post-program recidivism among the 157 subjects who successfully exited the program. The odds ratio and significance (presented in Table 2) demonstrated how those predictor variables were statistically significantly related to post-program recidivism. Table 2 indicates that unmarried subjects had 1.9 times greater odds of post-program recidivism than married subjects. A cross-tabulation computed on marital status and post-program recidivism among successful subjects, revealed that among the 51 subjects, 42 not-married subjects (82%) recidivated compared to 9 married subjects (18%), during the follow-up period. Regarding age-groups, the analysis demonstrated that age-group I (younger than 35 years of age) had almost 21 times greater odds of committing postprogram recidivism than age-group II (35 years and older). A cross-tabulation revealed that among the 51 subjects who reoffended during the follow-up period, 46 (90%) subjects belonged to age-group I, compared to 5 (10%) individuals in age-group II. The third significant predictor variable was prior drunk driving history. Table 2 indicates that successful subjects with such history had 6.2 times greater odds of committing recidivist offense than their cohorts with no such history. Also, crosstabulation demonstrated that among the 157 successful subjects, 75 individuals had prior drunk driving history, compared to 82 individuals with no such history. Even though 75 subjects with prior drunk driving history, exited the EMHD program successfully, 45 (60%) of them recidivated, compared to only 6 subjects with no such history.

### DISCUSSION AND CONCLUSION

The purpose of this study was to focus on convicted drunk drivers in an electronically monitored home detention program administered in a Midwestern county. The present study included all adult offenders who were convicted for drunk driving, sentenced to the program, and completed or failed to complete their sentences from the beginning of 2006 through the end of 2008 (a three-year study period). Afterward, all the subjects who successfully completed their sentences during the study period, were followed until the end of 2009 (at a minimum, the follow-up period was one year) to examine their post-program recidivism. To be more specific, the objective of the present study was to investigate which factors were statistically significant predictors of successful exit, and post-program recidivism among the successful participants.

To answer both the research questions (presented on p. 8), logistic regression analyses were computed. What follows next is a discussion on the findings from the logistic regression analysis on exit status (see Table 1). Six independent variables – marital status, charge reduction, type of sentence, age-groups, other prior drug/alcohol offense history, and prior detention (in institutions), significantly predicted successful exit from the program for all the 204 subjects. Based on the finding on marital status (married subjects were 2.5 times more likely to successfully complete their sentences than their unmarried cohorts), it may be concluded that married subjects had greater conformity at stake than their unmarried cohorts to complete their sentences. This finding on marital status supports the conclusion made by Courtright, Berg, and Mutchnick (2000) that married participants were more likely to exit their programs successfully.

As for charge reduction, the finding that subjects with no charge reduction were 2.3 times more likely to successfully exit the program than those whose charges were reduced, supports the report presented by Barton and Roy (2008). Conceivably, when the original charges were not reduced, the participants perceived their EMHD sentences seriously than those whose charges were reduced.

Regarding type of sentence, as was mentioned earlier, the convicted offenders were sentenced to the program as an additional condition to probation, direct commitment, and sentence modification. As for direct commitment, the participants were sentenced to the EMHD program in lieu of jail sentence, and regarding sentence modification, those participants had already spent time in jail before being placed in the program. A review of previous research indicated that only three previous studies (Barton and Roy, 2008; Roy and Barton, 2006; and Roy, 1999) examined the relationship between type of sentence and exit status. In all these studies, the researchers reported that probationers were more likely to successfully complete their sentences than non-probationers. This conclusion was supported by the finding (probationers had 1.96 times greater odds of successfully completing their sentences than non-probationers) from this study. Apparently, placement of those participants (direct commitment and sentence modification) in the EMHD program diminished the importance of the EMHD placement, compared to spending time in jail.

Regarding age-groups, several previous researchers (Roy and Barton, 2006; Roy, 1999, 1997, 1994; Brown and Roy, 1995; Lilly et al., 1993) reported

that subjects belonging to older age-group (35 and above) were more likely to complete their sentences successfully compared to their younger cohorts. The finding from this study supported the conclusion made by previous researchers. As evident from Table 1, it was found that the older age-group had 1.67 times greater odds of successfully completing their sentences that the younger age-group. Conceivably, older subjects were likely to have stakes in conformity or more to lose if they failed to complete their EMHD sentences.

As for the predictor variable – other prior drug/alcohol offense history, this study revealed that subjects with no such history had 4.3 times greater odds than their counterparts with such history, in successfully exiting the program. This finding confirms the finding reported by Barton and Roy (2008) from their study. Hence, it may be surmised that placement in the EMHD program is not appropriate for convicted drunk drivers with previous history of other drug/alcohol offenses.

Previous literature indicated that subjects who had records of prior detention (in jail or prison) were more likely to exit EMHD programs unsuccessfully (fail) than those who had no such prior records (Barton and Roy, 2008; Brown and Roy, 1995; Roy, 1994). This previous research report was also supported by the finding from the present study. As evident from Table 1, in this study, it was found that subjects with no history of prior detention had 3 times greater odds of being successful than those with such history. Hence, it can be assumed that for those participants who had previous detention history, placement in the EMHD program psychologically reduced the significance of the severity of their EMHD sentences. The point is – there is some cause for concern about successful outcome of subjects with records of prior institutionalization. This is especially disconcerting given the fact that unsuccessful exit from EMHD program mostly results in incarceration of the subjects. As the institutions become further overcrowded in the United States, the finding on prior detention is noteworthy.

Next, the findings from the logistic regression analysis on post-program recidivism among the successful subjects are discussed. Previous research on offenders (placed in EMHD programs) convicted for drunk driving did not investigate post-program recidivism among subjects who successfully completed their sentences. Hence, the findings from this study on post-program recidivism add to existing literature on these offenders. As evident from Table 2, three independent variables – marital status,

age-groups, and prior drunk driving history, significantly predicted recidivism among the subjects (N = 157) after they successfully completed their EMHD sentences. Those subjects who were not married had 1.95 greater odds (p=.000) of reoffending than those who were married. As may be recalled, "not married" subjects were also more likely to exit the program unsuccessfully. Given this context, it may be surmised that married subjects had greater conformity at stake compared to their "not married" cohorts in successfully exiting the program and not committing new offenses after their exit.

As for age-groups, this study revealed that age-group I (up to 35 years old) had almost 21 times (see Table 2) greater odds of recidivating than age-group II. Also, the analysis on exit status demonstrated that age-group I was less likely to successfully complete their EMHD sentences than age-group II. Based on these findings, it may be conceived that older subjects (36 years old and above) were more serious than their younger cohorts in successfully completing their sentences, and not committing recidivist offenses after their successful exit from the program.

Prior drunk driving history was also a significant predictor of post-program offenses. Table 2 demon-

strated that subjects with such history had about 6 times higher odds to commit post-program offenses than those with no such history. Given this finding, it is conceivable that for those subjects, placement in the EMHD program had little deterrent effect on their post-program offenses.

The findings reported in Table 1 and Table 2 suggest that the court might be more circumspect in sentencing convicted drunk drivers to a communitybased correctional program like EMHD. Especially the court might be more discreet in sentencing these offenders to the EMHD program – those who were not married, had their original charges reduced, originally had direct commitment and/or sentence modification, younger than 36 years of age, had other prior drug/alcohol offenses, had records of prior institutionalization, and had prior drunk driving records. The findings from the present study revealed that when those offenders are sentenced to the EMHD program, they were less likely to successfully complete their sentences, and more likely to commit post-program offenses, compared to those with no such records. Each of the identified significant predictor variables is worthy of further exploration.

### **REFERENCES:**

- Ball, R., Huff, C, & Lilly, J. (1988): House Arrest and Correctional Policy: Doing Time at Home. Newbury Park. CA. Sage Publications.
- Barton, S., Roy, S. (2008): Convicted Drunk Drivers in an Electronic Monitoring Program: An Exploratory Study. International Journal of Criminal Justice Sciences. 3 (1). 28-43.
- Barry, K. P. (2009): Electronic Monitoring: The Future of Crime Control? http://gpsmonitoring.com/blog/?p=1151
- Baumer, T., Maxfield, M., & Mendelsohn, R. (1993): A comparative analysis of three electronically monitored home detention programs. Justice Quarterly. 10 (1). 121-142.
- Bloomberg, T., Waldo, G., & Burcroff, L. (1987): Home Confinement and Electronic Surveillance, (in) B.R. McCarthy (Ed.) Intermediate Punishments: Intensive Supervision. Home Confinement, and Electronic Surveillance (32-41). Monsey, NY: Willow Tree Press.
- Brown, M. P., & Roy, S. (1995): Manual and Electronic House Arrest: An Evaluation of Factors Related to Failure, (in) J.O. Smykla & W.L. Selke (Eds.) Intermediate Sanctions: Sentencing in the 90s (1-20). Cincinnati, OH: Anderson Publishing.
- Charles, M. T. (1989): Electronic Monitoring for Juveniles. Journal of Crime and Justice. 12. 147-169.
- Clarkson, J. S., & Weakland, J. J. (1991): A Transitional Aftercare Model for Juveniles: Adopting Electronic Monitoring and Home Confinement. Journal of Offender Monitoring. 4. 2-15.
- Cooprider, K. W. (1992): Pretrial Bond Supervision: An Empirical Analysis with Policy Implications. Federal Probation. September. 41-49.
- Courtright, K. E., Berg, B. L., & Mutchnick, R. J. (2000): Rehabilitation in The New Machine? Exploring Drug and Alcohol Use and Variables Related to Success among DUI Offenders Under Electronic Monitoring—Some Preliminary Outcome Results. International Journal of Offender Therapy and Comparative Criminology. 44 (3). 293-311.
- Di Tella, R. & Schargrodsky, E. (2009): Criminal Recidivism After Prison and Electronic Monitoring. NBER Working papers 15602. National Bureau of Economic Research Inc., Cambridge, MA.
- Enos, R., C.M. Black, J.F. Quinn, & J.E. Holman (1992): Alternative sentencing: Electronically Monitored Correctional Supervision. Bristol, IN. Wyndham Hall Press.
- Finn, M. A. & Muirhead-Steves, S. (2002): The Effectiveness of Electronic Monitoring with Violent Male Parolees. Justice Quarterly. 19 (2). 293-312.
- Friel, C.M. & J.B. Vaughn (1986): A Consumer's Guide to the Electronic Monitoring of Probationers. Federal Probation. 50. 3-14.
- Jones, R. K., & Lacey, J. H. (2000): State of Knowledge of Alcohol-Impaired Driving: Research on Repeat DWI Offenders. U.S. Department of Transportation. Washington, DC.
- Kuplinski, J. (1990): Electronic Offender Monitoring in Virginia: Evaluation Report. Richmond, VA: Department of Criminal Justice Services. Richmond, VA.
- Lilly, J. R., Ball, R. A., Curry, G. D., & McMullen (1993): Electronic Monitoring of the Drunk Driver: A Seven-year Study of the Home Confinement Alternative. Crime and Delinquency. 39 (4). 462-484.
- Lilly, J. R., Ball, R.A., Curry, G.D., & Smith, R. (1992): The Pride, Inc. Program: An Evaluation of Five Years of Electronic Monitoring. Federal Probation. December. 42-47.
- Lilly, J. R., Ball, R. A., & Wright, J. (1987): Home Incarceration with Electronic Monitoring in Kenton County, Kentucky: An Evaluation, (in) B.R. McCarthy (Ed.) Intermediate Punishments: Intensive Supervision, Home Confinement, and Electronic Surveillance (p. 42-56). Monsey, NY: Willow Tree Press.
- Minnesota Department of Corrections (2002): Remote Electronic Alcohol Monitoring. St. Paul, MN.
- Palm Beach County Florida Sheriff's Department (1987): Palm Beach County's In-House Arrest Work Release Program, (in) B.R. McCarthy (Ed.) Intermediate Punishments: Intensive Supervision, Home Confinement, and Electronic Surveillance (181-187). Monsey, NY: Willow Tree Press.
- Renzema, M., & Skelton, D. (1990): Trends in the Use of Electronic Monitoring. Journal of Offender Monitoring. 3 (3). 12-19.
- Rogers, R., & A. Jolin (1989): Electronic Monitoring: A Review of the Empirical Literature. Journal of Contemporary Criminal Justice. 5. 141-152.

- Roy, S. (1999): An Analysis of the Exit Status of Adult Offenders in an Electronic Monitoring Home Detention Program in Indiana. Journal of Offender Monitoring. Summer. 12 (3). 8-13.
- Roy, S. (1997): Five Years of Electronic Monitoring of Adults and Juveniles in Lake County, Indiana: A Comparative Study on Factors Related to Failure. Journal of Crime and Justice. 20 (1). 141-160.
- Roy, S. (1994): Adult Offenders in an Electronic Home Detention Program: Factors Related to Failure. Journal of Offender Monitoring. 7 (4). 17-21.
- Roy, S. & Barton, S. (2006): Convicted Drunk Drivers in Electronic Monitoring Home Detention and Day Reporting Center: An Exploratory Study. Federal Probation, June. 49-55.
- Tonry, M. (1997): Intermediate Sanctions in Sentencing Guidelines. Washington, DC: National Institute of Justice. Washington, DC.
- Tuthill, J. (1986): An Evaluation of Electronic Home Detention as a Deterrent for Offenders Convicted of Driving Under the Influence of Alcohol. Journal of Probation and Parole. 17. 11-13.
- Vaughn, J. B. (1991): Use of Electronic Monitoring with Juvenile Intensive Supervision Programs, in T. Armstrong (Ed.) Intensive Supervision with High-Risk Youths (189-210). Willow Tree Press. Monsey, NY.
- Vaughn, J. B. (1987): Planning for Change: The Use of Electronic Monitoring as a Correctional Alternative, in B. R. McCarthy (Ed.) Intermediate Punishments: Intensive Supervision, Home Confinement, and Electronic Surveillance (71-84). Willow Tree Press. Monsey, NY.
- Zhang, S. X., Polakow, R. & Nidorf, B. J. (1995): Varied Uses of Electronic Monitoring: The Los Angeles County Experience, (in) J. O. Smykla and W. L. Selke (Eds.) Intermediate Sanctions: Sentencing in the 90s (95-110). Cincinnati, OH: Anderson Publishing.

# OSOBE OSUĐENE ZBOG VOŽNJE U PIJANOM STANJU UKLJUČENE U PROGRAM ELEKTRONSKOG NADZORA U KUĆI: TROGODIŠNJE ISTRAŽIVANJE STATUSA PRI ZAVRŠETKU PROGRAMA I RECIDIVIZMA NAKON PROGRAMA

### SAŽETAK

Istraživanje prikazano u radu obuhvaća odrasle počinitelje kaznenih djela osuđene zbog vožnje u pijanom stanju, a koji su bili osuđeni na EMHD program te su isti uspješno ili neuspješno završili u razdoblju od početka 2006. do kraja 2008. godine. Nakon toga, oni koji su uspješno završili program praćeni su do kraja 2009. s namjerom da se istraži recidivizam nakon programa. Razdoblje praćenja recidivizma sudionika istraživanja iznosilo je najmanje godinu dana. Specifičnije, cilj ovog istraživanja bio je proširiti znanja iz literature kroz fokus na "status pri izlasku" osoba osuđenih zbog vožnje u pijanom stanju kao i na "recidivizam" onih koji su uspješno završili program.

Ključne riječi: osobe osuđene zbog vožnje u pijanom stanju, program elektronskog nadzora u kući