

140853

NCJRS

MAR 18 1981

ACQUISITIONS

**PERSONALITY AND BEHAVIORAL CHARACTERISTICS OF FEMALE  
AND MALE DRINKING DRIVERS**

Brenda A. Miller, Ph.D.

Thomas H. Nochajski, Ph.D.

William F. Wieczorek, Ph.D.

Research Institute on Alcoholism  
1021 Main Street  
Buffalo, New York 14203

**Presented at the Research Society on Alcoholism Annual Meeting  
held at San Diego, California,  
June 13-18**

U.S. Department of Justice  
National Institute of Justice

140853

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the National Institute of Justice.

Permission to reproduce this copyrighted material has been granted by

William F. Wieczorek, Ph.D.  
(Research Inst. on Alcoholism)

to the National Criminal Justice Reference Service (NCJRS).

Further reproduction outside of the NCJRS system requires permission of the copyright owner.

## INTRODUCTION

Numerous attempts have been made to characterize the drinking driver population (see reviews by Moskowitz et al., 1979 and Perrine et al., 1989). One of the main approaches is the classification of drinking drivers into subgroups based on measures such as driving ability and attitudes, alcohol-related problems, personality, and psychological characteristics (Arstein-Kerslake and Peck, 1985, Donovan and Marlatt, 1982, Wieczorek and Miller, in press, Wilson, 1991). A serious problem with most of these accounts is that they are based on predominantly male populations. For example, about 89% of those arrested for DWI (any drinking-driving offense) are male (Maguire and Flanagan, 1991). Thus, descriptions of drinking drivers available in the literature may not adequately describe female drinking drivers.

Some concepts found to be important for understanding drinking drivers include a preoccupation with alcohol, alcohol dependence, sensation seeking, aggressiveness, and social/interpersonal competence. The rate of alcohol dependence is significantly greater among DWI offenders than in the general population (Miller and Windle, 1990, Vingilis, 1983). A preoccupation with alcohol is associated with a compulsion to drink and a focus on behaviors to seek alcohol, which are major principles of the alcohol dependence syndrome (Edwards and Gross, 1976). Further, a DWI group was one of the samples used by Leonard and associates (1988) to develop the Preoccupation with Alcohol Scale.

Sensation seeking is a trait defined by (1) a demand for novel and/or varied sensations or experiences, and (2) the intention to take risks to attain these experiences (Zuckerman, 1990). Drinking and driving is one such experience: sensation seeking has been linked with high-speed driving (Zuckerman and Neeb, 1980) and drunk driving (Arnett, 1990). Donovan and Marlatt (1982) found that aggression, particularly aggressive driving tendencies, characterized certain subgroups of drinking drivers. Poor interpersonal skills have been associated with problem drinking (Marlatt and Gordon, 1979). In addition, Farrow and Brissing (1990) found that more socially responsible attitudes, such as calling for a ride, are associated with adolescents who avoid impaired-driving episodes.

This paper examines differences between male and female DWI offenders, based on personality, demographic, and alcohol-related measures. The main research question is whether variables associated with drinking and driving can also differentiate between male and female DWI offenders.

## METHOD

The current sample was derived from a larger sample of 374 first-time and repeat DWI offenders from Nassau and Erie Counties in New York State. Subjects were recruited from probation and the Department of Motor Vehicles Drinking Driver Programs and were paid 10 dollars for completing the questionnaire. The overall sample was similar in demographic characteristics to the general DWI population of New York State, as reported by the New York State Division of Criminal Justice Services for 1988. The mean age of the overall sample was 33, with the majority being white (87%) and male (87%). A large proportion of the sample had

at least a high school education (86%) and were employed full-time (71%). Approximately 32% were married or living together and 21% were divorced, widowed or separated. The approximate mean household income for the sample was \$31,500. Finally, 74% of the sample qualified for a DSM-III-R diagnosis of alcohol dependence, as assessed by a self-administered version of the DIS (Robins et al., 1989).

While all subjects were given the Preoccupation with Alcohol Scale (Leonard et al., 1988) and a measure of interpersonal competence, The Negative Assertion Scale (Buhrmester et al., 1988), only half of the sample were given the Zuckerman's Sensation Seeking Scale (Zuckerman, 1979) and the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957). Thus only 23 females and 87 males had complete data for these latter two measures. The analyses discussed in this paper refer to these latter groups of individuals.

## RESULTS

In terms of demographic characteristics, the males and females did not differ in their level of education, employment status, racial composition, or marital status. Table 1 shows that the females were slightly younger and also had a lower personal income than the males. In addition, the females were less likely than the males to qualify for a DSM-III-R alcohol dependence diagnosis.

In Table 1, the univariate differences in mean scores for males and females are presented for interpersonal competence, preoccupation with alcohol, sensation seeking subscales, and the aggression subscales from the Buss-Durkee Hostility Inventory. Females had a significantly higher mean interpersonal competence score than males, indicating greater levels of interpersonal competence for female drinking drivers. Males scored significantly higher on the Preoccupation with Alcohol Scale, indicating that they were more involved in a drinking lifestyle. Three of five sensation seeking subscales were significantly different for males and females: disinhibition, boredom, and experience seeking. In all three instances, males showed greater indications of sensation seeking. Except for the assaultiveness subscale, males and females did not differ in aggressiveness as measured by the Buss-Durkee Hostility Inventory. For assaultiveness, males reported significantly higher levels than females.

While six of the measures tested in this study differentiated well between males and females, further analyses were performed to determine if these measures would continue to significantly distinguish between male and female drinking drivers when controlling for alcohol diagnoses and demographic characteristics (income and age). These measures were entered as covariates in the discriminant function analysis. Results showed that interpersonal competence, the three sensation seeking measures (i.e., disinhibition, boredom, and experience seeking) and the assaultiveness measure from the Buss-Durkee Hostility Inventory remained significant. The Preoccupation with Alcohol Scale was no longer significant when alcohol diagnoses and the demographic characteristics were controlled for, most likely reflecting the strong association with alcohol diagnoses.

Classification using the discriminant function obtained from the above analysis, indicated that the measures do a much better job of classifying males than females (see Figure 1). Nearly all of the males (96.6%) were correctly classified, as compared to approximately 56.5% of the females.

## DISCUSSION

While there have been some attempts to differentiate males and females, predominantly on demographic characteristics, there has been relatively little research on the female drinking driver and how her characteristics may present a different constellation of needs for the intervention efforts aimed at drinking drivers. This presentation indicates that there are differences in the characteristics of interpersonal competence, sensation seeking, and assaultiveness that differentiate male and female drinking drivers. In general, females can be characterized as more functional for these different measures.

The question becomes whether we should try to characterize the female drinking driver with the same set of personality and personal measures used for males. If females can be correctly classified by low levels, as males can be by high levels, then we are correct to assume that these measures are important to the female offender, as they are to the male. However our ability to correctly classify drinking drivers according to these characteristics suggests that these measures are not as robust in depicting the females as they are with the males. Further, these results suggest that either different concepts or different measures of existing concepts may be needed to characterize the female drinking driver. For instance, when we examine measures such as sensation seeking, we need to determine whether females are in fact less apt to seek sensations as compared to their male counterparts, or whether they perhaps seek sensations in different realms from their male counterparts. There are likely to be other characteristics that are important to females and we can not assume that measuring indicators of importance to males, necessarily tells us what we need to know about females.

While the drinking driving problem has largely been a male problem, the number of female drinking drivers identified through arrests/convictions is substantial. An estimated 160,000 female drinking drivers are apprehended nationwide each year (Maguire and Flanagan, 1991). Thus, it is appropriate to develop a more comprehensive understanding of the female drinking driver to ensure that our prevention and intervention efforts address this part of the population, as well.

## ACKNOWLEDGEMENTS

This research was supported by the Governor's Traffic Safety Committee with funds from the National Highway Traffic Safety Administration.

## REFERENCES

- Arnett, J. (1990). Drunk driving, sensation seeking, and egocentrism among adolescents. Personality and Individual Differences, **11**, 541-546.
- Arstein-Kerslake, G.W. & Peck, R.C. (1985). Atypological analysis of California DUI offenders and DUI recidivism correlates. Technical Report. Washington, D.C.: National Highway Traffic Safety Administration.
- Buhrmester, D., Furman, W., Wittenberg, M.T., & Reis, H.T. (1988). Five domains of interpersonal competence in peer relationships. Journal of Personality and Social Psychology, **55**(6), 991-1008.
- Buss, S.A. & Durkee, A. (1957). AN inventory for assessing different kinds of hostility. Journal of Consulting and Clinical Psychology, **21**, 343-349.
- Donovan, D.M. & Marlatt, G.A. (1982). Personality subtypes among driving-wjile-intoxicated offenders: Relationship to drinking behavior and driving risk. Journal of Consulting and Clinical Psychology, **50**, 241-249.
- Edwards, G. & Gross, M.M. (1976). Alcohol dependence: Provisional description of a clinical syndrome. British Medical Journal, **1**, 1058-1061.
- Farrow, J.A. & Brissing, P. (1990). Risk for DWI: A new look at gender differences in drinking and driving influences, experiences, and attitudes among new adolescent drivers. Health Education Quarterly, **17**, 213-221.
- Leonard, K.E., Harwood, M.K., & Blane, H.T. (1988). The preoccupation with alcohol scale: Development and validation. Alcoholism: Clinical and Experimental Research, **12**(3), 394-399.
- Maguire K. & Flanagan, T.J. (eds.). (1991) Sourcebook of Criminal justice Statistics 1990. U.S. Department of Justice, Bureau of Justice Statistics. Washington, D.C.: USGPO.
- Marlatt, G.A. & Gordon, J.R. (1979). Determinants of relapse: Implications for the maintenance of behavior change. In P. Davidson (Ed.), Behavioral medicing; changing health lifestyles (Vol. 10). New York: Brunner Mazel.
- Miller, B.A. & Windle, M. (1990). Alcoholism, problem drinking, and driving while impaired. In R.J. Wilson and R.E. Mann (Eds.), Drinking and driving. New York: The Guilford Press.
- Moskowitz, H., Walker, J., & Gomberg, C. (1979). Characeteristics of DWI's, alcoholics, and controls. Paper prepared for California Department of Alcohol and Drug Abuse. Los Angeles, Ca.: University of California.

- Perrine, M.W., Peck, R.C., & Fell, J.C. (1989). Epidemiologic Perspectives on drunk driving. In Surgeon general's workshop on drunk driving: background papers (pp. 335-76). Rockville, Md.: U.S. Department of Health and Human Services.
- Robins, L., Helzer, J., Cotter, L., & Goldring, E. (1989). NIMH Diagnostic Schedule: Version III Revised (DIS-III-R). St. Louis, Missouri: Washington University.
- Vingilis, E. (1983). Drinking drivers and alcoholics: Are they from the same population? In R.G. Smart, F.E. Glaser, Y. Israel, H. Kalant, R.E. Popham, & W. Schmidt, (Eds.), Research advances in alcohol and drug problems (Vol. 7), (pp. 299-342). New York: Plenum Press.
- Wieczorek, W.F. & Miller, B.A. (in press). A preliminary typology for treatment matching of driving-while-intoxicated offenders. Journal of Consulting and Clinical Psychology.
- Wilson, R.J. (1991). Subtypes of DWIs and high risk drivers: Implications for differential intervention. ALcohol, Drugs and Driving, 7, 1-12.
- Zuckerman, M. (1979). Sensation seeking: Beyond the optimal level of arousal. Hillsdale, NJ:Lawrence Erlbaum.
- Zuckerman, M. (1990). The psychophysiology of sensation seeking. Journal of Personality, 58, 313-345.
- Zuckerman, M. & Neeb, M. (1980). Demographic influences in sensation seeking and expressions of sensation seeking in religion, smoking, and driving habits. Personality and Individual Differences, 1, 197-206.

**Table 1.**  
**Univariate Results From Discriminant Function Analysis**

	Females (n=23)	Males (n=87)	F-Value	Sig. of F
<b><u>Demographic - Covariates</u></b>				
Age	29.90	33.67	4.56	.04
Personal Income	\$11,004	\$22,155	8.78	.004
Proportion Qualifying for a DSM-III-R Alcohol Dependence Diagnosis	0.57	0.74	2.94	.09
<b><u>Interpersonal Competence</u></b>	31.09	25.88	12.22	.0007
<b><u>Preoccupation with Alcohol</u></b>	28.35	35.33	4.67	.04
<b><u>Sensation Seeking</u></b>				
Disinhibition	3.09	4.93	8.42	.005
Boredom	3.83	5.80	9.19	.004
Driving	0.52	0.80	1.80	NS
Thrill & Adventure	7.70	8.78	1.73	NS
Experience Seeking	4.70	6.47	6.56	.05
<b><u>Buss-Durkee</u></b>				
Assaultiveness	3.17	4.48	9.27	.003
Indirect	4.22	3.68	2.08	NS
Irritability	4.39	5.11	2.17	NS
Negativism	1.96	2.37	1.49	NS
Resentment	2.96	3.46	1.17	NS
Suspicion	4.13	4.51	F < 1	NS
Verbal	6.13	6.28	F < 1	NS
Guilt	4.74	4.82	F < 1	NS

# Discriminant Function Classification Results

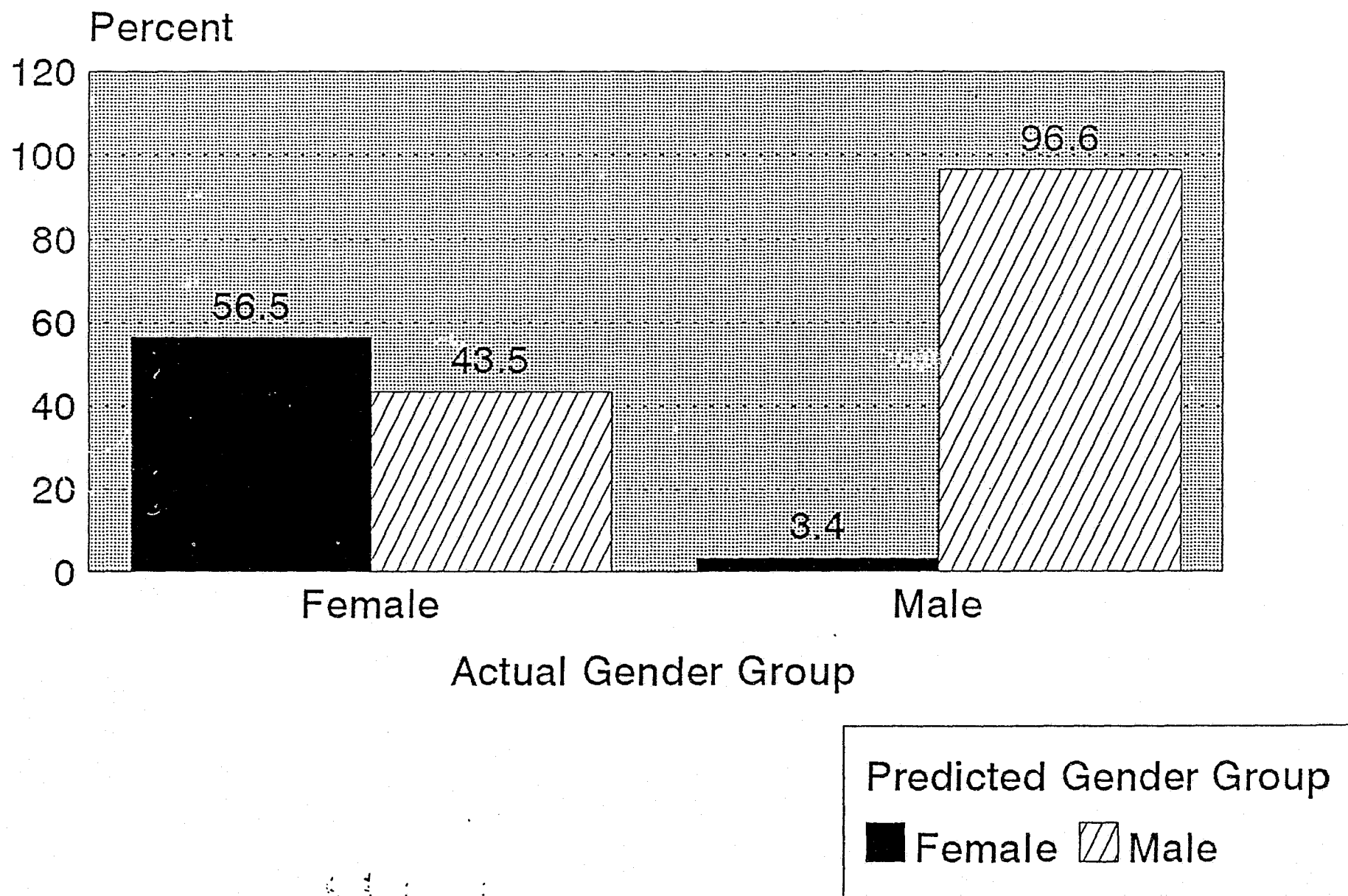


Figure 1.