

Determining Standards of Care for Substance Abuse and Alcohol Use in Long-Haul Truck Drivers

Debra Gay Anderson, PhD, APRN, BC*,
Peggy Riley, RN, MSN

*College of Nursing, University of Kentucky, 315 CON Building,
Lexington, KY 40536-0232, USA*

Long-haul truck drivers, by standards of working conditions and work environment, are a vulnerable population. Long-haul truck driving is defined as driving distances that would not allow going home each night. Long-haul truck drivers deliver goods and services throughout the United States in addition to Canada and Mexico [1]. Drivers deal with job hazards that can increase stress levels and deplete coping mechanisms, that may lead to alcohol or drug abuse [2,3].

Few studies have been conducted dealing specifically with health issues faced by the long-haul truck driver. This vulnerable population is at risk for a multitude of health problems ranging from workplace violence to health issues, such as coronary artery disease and substance abuse [4]. This article deals with factors increasing the long-haul truck driver's risk for abuse of alcohol or drugs. Exploring this important topic uncovers factors that place the long-haul truck driver at risk for increased stress, that may lead to addiction. Finally, this article makes recommendations for standards of care that promote rapid identification of truck drivers at risk for addiction and for interventions for quick recovery to prevent long-term health consequences.

Background and significance of problem

There are approximately 9 million truck drivers in the United States, with approximately 3.1 million of these being long-haul truck drivers [5]. As a

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* Corresponding author.

E-mail address: danders@uky.edu (D. Gay Anderson).

result of their job's description and characteristics, long-haul truck drivers are vulnerable to increased stress that can lead to abuse of alcohol or chemical substances. Increased stress levels have been found to increase the likelihood of abusing alcohol or drugs [2,3,6]. Identification of these factors that lead to increased stress is an important first step in identifying long-haul truck drivers at risk for abuse.

There are two major categories of risk factors that can lead to increased stress in the long-haul truck driver: work conditions and work environment. Working conditions include such factors as loss of support system, decreased amount of rest and relaxation, and decreased physical activity. Working environment includes such factors as driving conditions and workplace violence.

Work conditions

Long-haul drivers spend significant amounts of time, often weeks at a time, away from home and family. These extended stays away from home limit the truck driver's access to valuable support systems. Having a strong social and family support system has been identified as a buffer against stress that could lead to alcohol or drug abuse [2].

Working long hours may also lead to increased stress [7]. Drivers spend an average of 40.9 hours per week driving. Although the Department of Labor sets guidelines for driving extended hours, drivers must frequently drive beyond legal limits to meet delivery or quota deadlines for job security [1]. To meet delivery deadlines, drivers may turn to drugs, such as amphetamines, to keep them awake [8].

Sleep deprivation can quickly become an issue for the long-haul truck driver. Long periods of driving decrease the amount of sleep a driver can get and decrease the amount of downtime or relaxation time a driver can have. Adequate rest and relaxation are important as stress reducers and serve as protective factors against alcohol or drug abuse [2,9]. Compounding sleep deprivation attributable to increased driving time is the fact that high levels of stress can lead to insomnia, further decreasing the ability of the truck driver to get adequate rest [6,9]. Drivers may turn to illicit drugs and alcohol to help them get much needed sleep [8].

Little or no physical activity can also lead to increased stress. Physical activity releases endorphins, which act as a buffering agent against hormones that cause stress [2,3]. Spending extended hours driving does not allow the truck driver to have time for any physical activity. The most physical activity the driver may get is unloading or reloading the truck at delivery or pick-up sites [2,6].

One of the important findings that emerged from the study on Workplace Violence in Long-Haul Truck Drivers that can have an impact on addiction to alcohol or drugs is that of homelessness. Study findings suggested that a large number of long-haul truck drivers have no permanent residence; their truck is

their home. Long-haul truckers, who are also without a permanent residence, are often faced with day-to-day survival needs, an increased risk for violence, increased stress, and decreased coping skills similar to those who are homeless and thus they are at higher risk for the use and abuse of alcohol and/or drugs than those truckers who have permanent residences [10,11].

Work environment

The work environment of a long-haul truck driver can be stress inducing. Truckers must drive in adverse weather conditions, such as rain, snow, or ice. Truckers must also drive at night or in high-traffic areas [1,5]. Sometimes, to avoid high traffic areas, truckers drive on weekends and holidays [1]. Truckers are also at high risk for road rage and other road safety hazards that can lead to an increased stress level [1,5]. Truckers spend a significant amount of time driving in strange and unfamiliar towns and cities. This factor places the trucker at an increased risk for violence, which can also lead to increased stress. Workplace violence is a major public health problem. In the United States, an estimated 20 workers are murdered each week in the workplace and approximately 1.7 million workers are injured each year from workplace violence [5]. Workplace violence contributes to 18% of all violent crimes in the United States [12]. The nature of the truck driver's job places him or her at increased risk for violence [5,12]. Certain workplace characteristics place victims at higher risk for potential assault and murder. These include having contact with the public; exchange of money; delivery of passengers, goods, or services; having a transient work environment; working alone or in small numbers; working late at night or early morning; working in high-crime areas; guarding valuable property; and working in community-based settings [5]. Long-haul truck drivers are subject to most of these risk factors at some point in performing their job.

It is important for public health nurses to be rapidly able to identify those at risk for potential alcohol or drug abuse so as to prevent long-term health consequences to truck drivers and their families. The study, *Workplace Violence in Long-Haul Truck Drivers*, has not only revealed valuable information about the risk of violence to the long-haul truck driver but other health issues that can have an impact on the long-haul truck driver. Sleep patterns, increased stress, and poor nutrition can have a negative impact on the health of the long-haul truck driver. Each of these findings needs further investigation to determine appropriate recommendations for interventions to decrease health risks to long-haul truck drivers.

Study methodology

In response to the need for accurate identification of workers at risk for violence, the study, *Risks for Workplace Violence in Long-Haul Truckers*, was carried out by Drs. Anderson, Reed, and Browning at the University

of Kentucky. This was a cross-sectional, nonintervention study design using qualitative and quantitative methods. The study period was from 2003 through 2006, and the study was funded by National Institute of Occupational Safety and Health (R01 OH07931).

The study aimed (1) to identify the types of violence that women and men experience while working as a long-haul truck driver; (2) to identify risk factors that contribute to violence against truckers and between truckers; (3) to differentiate the risks for work-related stress among distinct sociodemographic groups of truckers as they relate to specific exposures experienced by long-haul truck drivers; (4) to determine the prevalence of domestic violence experienced by long-haul truck drivers while driving when their driving partner is their intimate partner; and (5) to identify work environment factors that place truck drivers' safety at risk. Project aims were consistent with Healthy People 2010 objectives addressing reduction in work-related homicides (objective 20.5) and work-related assaults (objective 20.6), and with the National Institute for Occupational Safety and Health National Occupational Research Agenda (NORA) objectives.

The target population for this study was male and female long-haul truck drivers. Power analysis was used to determine sample size. A total of 987 male and female truck drivers from across the United States participated in this study. Recruitment occurred at truck shows and truck stops across the United States using a convenience sample of truck drivers. Because this job position is transient by nature, it was essential to go to the workplace to obtain data. Inclusion criteria for the study were commercial drivers who spend most work hours as long-haul truck drivers, age of 21 years or older, and ability to speak English. Long-haul truck drivers were defined as those who spend one or more nights away from home. Drivers also had a current commercial driver's license (CDL).

Measures

Participants completed a questionnaire designed by the research team entitled the "Work-Related Safety and Violent Victimization Survey." Questions on the survey related to work safety. In addition, the following scales were used:

- Conflict tactics scale. This was used to measure reasoning, verbal aggression, and violence within relationships. A seven-point Likert scale was used to self-report.
- Worksite harassment assessment measured worksite harassment.
- Trucker strain monitor used a Likert scale to measure work-related fatigue and sleep problems.
- Perceived stress scale measured life stresses.
- CAGE assessment measured drug and alcohol problems (CAGE is an acronym formed by taking the first letter of key words from each of the four questions: cut out, annoy, guilty, and eye opener).

- Demographic characteristics were assessed, such as age, gender, years driving, and socioeconomic factors.

Procedures

Qualified members of the research team or designees collected data at truck shows. Each survey took approximately 20 to 30 minutes to complete. Data collectors were trained in survey techniques and certified research integrity. Subject recruitment took place at truck shows, including those in Boston, Dallas, Louisville, and Las Vegas. Truck stops used for recruitment were located in Portland, Chicago, Des Moines, and two sites in Kentucky. Use of the various truck shows and truck stops ensured that data were collected from across the United States and reduced repeat individual participation.

Preliminary findings on alcohol and drug use

Preliminary study findings related to drug and alcohol use indicate the following: 63.04% indicated they had beer, wine, or liquor within the past 12 months; 38.79% indicated they had used alcohol less than one time a month; 36.82% indicated they had used alcohol one to two times a month; 14.12% indicated they had tried to cut down or quit drug or alcohol use; 2.87% indicated they had taken drugs or used alcohol to make things more manageable; and 8.25% indicated they became angry when someone suggested that they overused drugs or alcohol (Table 1).

Table 1
Preliminary study findings on drug and alcohol use by long-haul truck drivers

Type of use	Percentage
Had beer, wine, or liquor in past 12 months	
Yes	63.04%
No	36.96%
How often had alcohol	
<1 month	38.79%
1-2 times a month	36.82%
Several times a month	11.13%
1-2 days a week	11.29%
Almost daily	1.96%
Tried without success to cut down or quit drugs or alcohol	
Yes	14.12%
No	85.88%
Take a drink to make things more manageable	
Yes	2.87%
No	97.13%
Ever became angry when someone suggested you used too much	
Yes	8.25%
No	91.75%
Ever feel guilty or remorseful after drinking episode	
Yes	7.44%
No	92.56%

What the truck drivers are saying

Important qualitative data were obtained through one-on-one interviews with long-haul truck drivers at the truck shows and truck stops and through follow-up telephone calls to these truckers after they completed the survey. These qualitative data helped to identify issues faced by the long-haul truck driver that could have negative health consequences in addition to issues that indicated further investigative research. These findings also assisted in identification of specific risk factors that could lead to addiction of alcohol or drugs. Categories that have emerged from these interviews are social or family support system, safety, homelessness, availability of drugs, and job security.

Social or family support system

Several truckers mentioned the difficulties of being away from home and family. This causes loss of a social and family support system that can have negative consequences. The truckers are saying: "Our jobs take us away from home and family, and we are sometimes placed in dangerous situations"; "It's hard going days and sometimes weeks without seeing my family"; and "It feels like no one cares what happens to us as truck drivers."

Safety

Fear of victimization also places the long-haul truck driver at risk for increased stress, thus leading to alcohol or drug abuse. The truckers are saying: "As soon as I pulled up to the delivery site and got out of my truck, I was hit in the head with a tire iron; I thought I was going to die right there on the spot"; "Driving is dangerous; not only do you have to worry about road conditions, you have to worry about road rage"; "I have been run off the road many times by irate drivers, not truck drivers but other drivers"; "It is scary going to some of these places; you never know what is going to happen when you pull up"; and "The truck stops are as bad as some of the places I deliver to; you never know what you're going to encounter."

Homelessness

Homelessness has been identified as a significant factor for heightened risk of substance abuse and alcoholism. Without further research, it is hard to determine the exact number of homeless truck drivers, but interviews have revealed their existence. The truckers are saying: "My home is my truck"; "I can't give you an address because my home is my truck; all my belongings are in it, and that is not much"; and "Me and my dog travel together; we only got each other."

Availability of drugs

The ready availability of drugs can influence drug abuse. Truck drivers revealed how available drugs are at the truck stops. The truckers are

saying: "When you pull up to a truck stop, almost immediately you are approached by prostitutes and drug dealers"; "I pulled up to a truck stop and before I could get out of my truck, someone was in the seat beside me offering me a pick-me-up"; "You can get almost anything you want at the truck stops"; and "I sometimes take something to keep me awake, not very often but just now and again."

Job security

Job demands on the long-haul truck driver create the atmosphere for increased stress. Truckers must drive long hours to meet company deadlines to keep a job. The truckers are saying: "Do you want me to put down the actual number of hours I drive or what I am supposed to drive"; "If I don't drive longer than the law allows, you won't have a job very long"; and "I have a family to take care of; if I don't drive, I don't feed them."

Nursing implications

In 2006, approximately 20 million Americans used illegal drugs and 17 million participated in heavy drinking [13]. Substance abuse and alcoholism have severe ramifications for the health of individuals and families. Abusers may ignore other medical conditions, such as heart disease, cancer, or mental disorders, to satisfy their addiction. Medical testing, such as radiographic imaging and blood tests, have found total systemic effects of long-term drug abuse [14]. Drug addiction may also place the abuser at an increased risk for engaging in high-risk behavior, such as unprotected sex, which can lead to sexually transmitted disease or HIV. Intravenous drug users place themselves at risk for HIV or hepatitis [14].

Health consequences of alcohol abuse include damage to the liver, cardiovascular system, immune system, gastrointestinal system, and skeletal system [15]. Alcohol abuse may also cause the abuser to ignore other health and mental problems. Abusers often ignore nutritional needs in lieu of alcohol, thus increasing negative health effects [15,16].

Safety concerns with drug and alcohol abuse also pose concern. In 2005, approximately 42,636 traffic accidents involved impaired drivers, with 16,694 of these being fatal [17,18]. The combination of lack of sleep, increased stress, and chemical impairment can pose a significant risk to long-haul truck drivers and those they share the road with.

As public health nurses, it is vitally important to develop standards of care for addressing these issues in this vulnerable population. Rapid identification of those at risk for addiction and quick intervention can decrease or prevent long-term negative health consequences.

Recommendations

The Workplace Violence in Long-Haul Truck Drivers study has assisted in identifying those drivers at risk for substance abuse. Recommendations for

development of standards of care for interventions to meet the needs of this vulnerable population include increasing awareness of risk, making resources available, improvement of working environment, and policy changes.

Increasing awareness of risk

A campaign should be initiated to increase awareness of the potential of alcohol and substance abuse. Literature, such as flyers and posters, should be placed at frequently visited sites, such as truck stops, addressing signs and symptoms of increased stress, coping with stress, and stress reduction. Getting truckers to understand the importance of early intervention for stress reduction may prevent progression to substance abuse.

Resources

Placing information at truck stops with hot-line numbers and resource lists with health care providers trained in working with those at risk for substance abuse and those with addictions can assist the long-haul truck driver through early intervention. Early intervention, at the first indication of substance abuse, may prevent long-term health consequences that result from substance abuse.

Improvement of working environment

Improvement of the working environment should focus on providing truck drivers with opportunities for physical activity, improved nutrition, relaxation, and access to health care. Truck stops could be instrumental in providing truck drivers areas for physical activity and relaxation. Improving the nutritional status of truck drivers can be accomplished by providing healthier food choices at truck stops. Access to preventive health care, such as health screenings, could also be provided at truck stops.

Policy change

Stricter policies that focus on decreasing driving time that are aimed at operators should be implemented. Operators often place undue pressure on the trucker to increase the number of hours he or she drives in order to meet deadlines and maintain job security. Specifically targeting this group may assist the long-haul truck driver in getting home more often and allow for more downtime, therefore decreasing stress. Policies should also focus on the safety environment at truck stops and rest areas, making it safer for drivers to sleep and rest.

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