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Occupational Stressors and the Mental Health of Truckers

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Trucking has been classified as one of the highest-risk occupations in the United States. Occupational stress is even greater for long-haul truckers who are away from home, family, friends, and other support networks for several days or weeks at a time.

Occupational stressors and the mental health of truckers was studied using data collected as part of a large multisite ethnographic study of trucker networks. Findings from the current study show that truckers face many occupational stressors including constant time pressures, social isolation, disrespectful treatment from others, driving hazards such as weather changes, traffic, and road conditions, and violence or fear of violence. Facing such stressors may be a factor in the prevalence of risky behaviors including drug use and paying for sex. Therefore, mental health promotion and treatment for truckers is an important area of concern and must be examined within the broader context of the transportation environment.

Long-haul trucking has been classified as one of the highest-risk occupations in the United States (US Department of Labor, Bureau of Labor Statistics, n.d.). Truckers regularly experience

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high levels of occupational stress (Apostolopoulos & Sönmez, n.d.; Essenberg, 2003; Saltzman & Belzer, 2003) that places them at risk for social, psychological, and psychiatric problems such as depression (Pereira da Silva et al., 2009), substance abuse (Anderson & Riley, 2008), risky sexual behaviors (Apostolopoulos, Sönmez, Shattell, Rothenberg, Kronenfeld, Miller, & Smith, 2009), and even suicide (Bernard, Bouck, & Young, 2000; Steptoe & Brydon, 2005). Occupational stress is even greater for truckers who are away from home, family, friends, and other support networks for lengthy periods of time, ranging from days to weeks.

Compounding these mental health problems is the fact that many of the over three million truck drivers in the US (US Department of Labor, Bureau of Labor Statistics, n.d.) have limited access to and utilization of health care while on the road (Layne, Rogers, & Randolph, 2009; Reed & Cronin, 2003; Stasko & Neale, 2007). Furthermore, the hyper-masculine work environment of truckers (Belzer, 2000; Ouellet, 1994; Stratford, Ellerbrock, Akins, & Hall, 2000) compounded by the Federal licensing regulations that require drivers to be “mentally fit” (Federal Motor Carrier Safety Administration, 2007; Federal Motor Carrier Safety Administration, 2008) are likely to be reasons for truckers to ignore or downplay any mental health problems they may experience.

The health of long-haul drivers needs to be examined within the broader ecological context of the trucking sector, which includes geographic, social, and occupational factors. Additionally, structural factors such as government regulations, trucking operations, corporate trucking policies and regulations, as well

as the built environment should be examined (Apostolopoulos, Sönmez, Belzer, & Shattell, in press). Truck drivers experience significant fatigue and sleep loss due to the government's "hours of service" [HOS] requirements that are used to regulate the trucking sector. Drivers' efforts to comply with the HOS regulations significantly disrupt their circadian rhythms (Heaton, 2005). This disruption, along with increased levels of stress, and sedentary lifestyles negatively impact the health of truckers (Belzer, 2000). Trucking operations include market structure, trucking logistics, "for hire" carriers, a hub-and-spoke system of distribution that spans the continental US, terminals and warehouses, and shippers and consignees that form a segmented market where shippers hold most of the bargaining power. Truckers, therefore, work longer hours and drive while tired in order to make their deliveries on time (Saltzman & Belzer, 2003).

The purpose of this paper is to report findings on the occupational stressors and the mental health of truckers using data collected as part of a large multisite ethno-epidemiological study of trucker networks, and to explore mental health promotion and prevention efforts to enhance mental health and access to treatment for truckers.

DATA AND METHODS

Sample, Settings, and Procedures

Sixty long-haul truck drivers were interviewed at two urban, inner-city truck stops in the Southeastern United States, using respondent driven sampling procedures. Because each trucker in the sample was carefully recruited based on his involvement in illegal or illicit behaviors, such as drug use or transactions with sex workers, the truckers' identities were carefully protected from negative repercussions linked to employers or law enforcement. Study participants' identities were kept anonymous by the use of pseudonyms (CB handles, street names, nicknames) on informed consent forms; each participant received a \$40 incentive. Trained fieldworkers conducted audio taped personal interviews using a semi-structured interview guide developed by the second author (Apostolopoulos). Open-ended questions were organized into several sections: (1) individual background characteristics, such as sociodemographics, health and trucking history, and sexual and substance-use behaviors; (2) psychosocial factors, such as professional pressures, life traumas, coping mechanisms, and mental health problems; and (3) sociostructural issues, such as health-care access and occupational stressors.

All interviewed truckers were male and between the ages of 26 and 59 ($M = 41$). Thirty-five truckers (59.3%) identified as black or African American, 39% identified as white, and 1.7% identified as Hispanic or American Indian. Thirty truckers (50.8%) had a high school diploma or GED, 22% had some college, 5.1% had an associate's degree, and 22% had neither a high school diploma nor a GED. In terms of marital or partnership status, 35.6% were married or living with a partner, 32.2% were divorced, 18.6% were single, 11.9% were sepa-

rated, and 1.7% was widowed. Fifty-six truckers (95%) identified as heterosexual/straight, 5% identified as bisexual, and none identified as gay. Most of the participants were experienced drivers: 10.2% reported driving for over 25 years, 45.8% were driving for 11–25 years, 42.3% had driven 10 years or less, and one person's response was unclear (inaudible on the audio recording). The majority of truckers (84.7%) were company drivers, and 15.3% identified as an owner/operator (i.e., self-employed). Days per month spent at home varied among the sample of truckers: 44.1% reported being home between 1 and 4 days per month; 25.5% were home 5 to 8 days per month; 23.7% were home 10 to 20 days per month; while 3.4% stated that they were never home. In fact, one trucker stated that he had no home.

Data Analysis

The audio taped interviews were transcribed verbatim and then entered into NVivo 8.0 (QSR International, 2008). The authors analyzed the data using the content analysis method described by Patton (1990), following the tenets of qualitative description described by Sandelowski (2000) and Sullivan-Bolyai, Bova, and Harper (2005). The authors first immersed themselves in the data by reading and re-reading the transcripts, then used preliminary thematic coding to explore truckers' stressors, health problems, stress-related conditions, access to health care, family/friend relationships and sources of support, substance use, and experiences with violence and traumatic life events. An open coding approach was used to bracket text sections into themes (Emerson, Fretz, & Shaw, 1995). These categories were then reviewed for internal homogeneity and external heterogeneity and then tested for completeness.

The demographic data and some of the structured interview responses were entered, coded, and analyzed using SPSS 17.0. Quantitative data are reported as percentage of the total sample, which for this study was 59 truckers (one interview was not used because of technical difficulties).

FINDINGS

Truckers' Stressors

Study participants reported many stressors rooted in the transportation environment, including time pressures, loneliness, boredom, financial pressures, fatigue and lack of sleep, being away from home, driving conditions (bad weather, accidents, highway construction), road rage, city traffic, violence (getting mugged/robbed, being a victim of assault), dangers around truck stops and shipping and receiving warehouses, racism and discrimination, as well as negative perceptions of truckers believed to be held by the general public (e.g., "rednecks," "the public hates us").

Truckers reported feeling intense pressure to deliver loads on time and described issues they felt were well outside their locus of control but which made on time deliveries nearly impossible.

Truckers talked about driving longer and more continuous hours, often while tired, and sometimes altering their logbooks (or keeping double logbooks) to stay in accordance with Federal HOS regulations. Statements from truckers about time stressors were common: “You have to be there, on time, but they don’t give you enough time to get there, so you have to drive all night.” Truckers’ feelings of powerlessness in the transportation environment are conveyed in the following quote:

That’s always stressful. Because you have—What happens is, the way our system is set up, the company that I’m with, you have to put in a PTA. A PTA is a Predicted Time of Availability. All right? And then when they shoot you the messages for the delivery time, you’re going with that. So you’re kind of hoping that when you get to this shipper, that the shipper is going to get you out. Okay. If the shipper doesn’t get you out in time, you more or less have to drive some . . . hours to make it to the [consigner]. Because it is an appointment. It’s a set appointment. Now, if you cannot make an arrangement with the person receiving the product [get them to agree to a later arrival time], that load has to be there. It has to be there.

Time crunches and tight delivery schedules have a detrimental impact on truckers’ sleep. According to one trucker: “A lot of times you’re low on sleep and sometimes when you’re tired you got to drive, sometimes when you’re wide awake you got to sleep. It’s kind of rough . . . It makes you more tired. A lot of times you’re always tired because of that.” Another trucker described problems with interrupted sleep and anxiety over delivery times in the following way, “lack of ability to sleep for an 8-hour period. Waking up and, like I say, anxiety. From being afraid you’re going to be late.” Some long-haul truckers are so accustomed to sleeping in their trucks that they experience difficulties sleeping in more traditional settings. As one trucker put it, “I only sleep good in the truck. I can’t sleep at home and I can’t sleep at motels. My truck’s idling, the curtains closed.”

Long-haul truckers frequently experience loneliness, isolation, and boredom. One driver described the interpersonal and relational costs of working as a long-haul trucker:

I’m always alone, man. I’m always alone. You know . . . it’s just that I know I can do more, but what do I do to make the money that I make? I’m sacrificing pretty much my sanity. My ability to talk to people. It is total isolation. You’re isolated. If you’re not a people-person it’s a perfect job. If you like to communicate with people and talk and say, “Hello. How are you doing?” You know? This is not the job for you.

Another trucker linked his loneliness and depression to engaging in risky behaviors such as drug use and sex with sex workers:

Trucker: Sometimes I get depressed because, you know, I don’t feel like driving. It just hits, that’s all I do. Look at other truck drivers. How many other truck drivers? It’s not like you’re doing something exclusive. I’m just . . . sometimes you feel like a machine, like part of that truck . . . you’re self-contained in your own world. But the loneliness is the thing that bothers me and I think that’s what drives me to do a lot of stuff.

Interviewer: Okay. How does that affect you? The loneliness?

Trucker: It makes me seek out companionship in ways that I wouldn’t normally do.

On average, truckers can spend 10 to 14 hours a day driving, often in traffic, through construction zones, in unfamiliar areas, and in unfavorable weather conditions. Most truckers interviewed referred to stress they felt from driving in such conditions. They noted their frustrations with the “4-wheelers” and described their methods to deal with them. Several truckers mentioned “dipping,” which is when a trucker veers his truck slightly into the passing lane but then returns to his previous lane to “warn” the 4-wheeler behind him that he intends to pass. Several truckers complained about absent-minded or distracted driving exhibited by automobile drivers as a result of texting, talking on a cell phone, and eating. One trucker noted, “The highway is a stressful thing with traffic or congestion . . . 4-wheelers, you know. They seem to have their phone in one hand and . . . you know. They’re out in la-la land. They’re not even . . . They don’t even know where in the hell they’re at. They do it every day.”

Another trucker added,

Everybody’s selfish. I got to get there before you, you know what I’m saying? So they don’t be thinking safety, you know, they don’t be considerate, you know? It’s like sometime I be driving and I see the car behind me and if I turn my signal on they’ll speed up and try to cut me off and then go on down the road then they slow down again. It’s just crazy . . . everybody cutting you off . . . so I try to set my schedule where I drive at night. It’s a lot more relaxing.

One trucker described driving as a dangerous job,

Your life is in jeopardy every day. You live on a highway, on the highways where a lot of people aren’t educated on the proper ways to drive. Everybody thinks they’re the only ones that know how to drive. Everybody’s always in a hurry to get to work. To get to somewhere they don’t want to be. And you’re in their way. Dangerous job.

The work environment for truckers can be dangerous in ways other than highway driving. One trucker shared experiences in which he witnessed “hand guns being pulled on drivers. People shooting at drivers. People beating up drivers, trying to take their loads . . . Cops harassing drivers. Fighting drivers [trucker on trucker violence]. All that. It’s just pretty much—it’s a lot of violence, a lot of violence.” Truckers also described several instances of being robbed, mugged, or otherwise assaulted in incidents of violence either between truckers or directed against truckers. One driver recalled a time when he was shot while being robbed, “I was at a truck stop, and a young man approached me wanting to borrow some money, that I don’t know, so I brushed him off. And a minute and a half later I was shot four times.” Several truckers said they carried weapons for self-protection, including guns, knives, baseball bats, and tire irons.

Particularly because shipping and receiving warehouses are often located in remote areas or depressed parts of cities and towns, truckers frequently drive in areas with which they are unfamiliar and often late at night, causing them to feel anxious about their safety. Some noted taking extra care when asking

for directions, knowing they may receive faulty information that would lead them into dangerous situations, leaving them vulnerable to robbery and assault. One trucker recounts such an experience by a fellow driver:

This one guy tried to rob a truck one time, you know. The truck was loaded out there. Trying to protect his load and uh . . . he got messed up, you know. Sometimes somebody is going to mess with your load. The other guy got a knife. Because of the merchandise. You can always replace the merchandise, you can't replace yourself.

Truckers' Health Problems, Stress-Related Conditions, and Access to Health Care

The majority (76.3%) of interviewed truckers reported one or multiple physical health problems, including musculoskeletal discomforts such as back pain, knee pain, neck pain, and leg and hip problems (16.9%), hypertension (16.9%), diabetes (10.2%), and many also complained of overweight or obesity (8.2%).

Mental health problems were acknowledged by 18.7% of the truckers. More specifically, stress and anxiety were identified by 11.9% of the drivers interviewed. As stated by one trucker, "I stay stressed all the time . . . Depressed, too . . . Feel sad, bad about being a truck driver. Lonely." Depression was identified by 6.8% of the sample and was described in the following way by one trucker:

I don't get motivated. I'm supposed to be going down the road getting somewhere I just pull over and stay and sit there in one spot for 20 hours for no reason. I did it just last night for no reason. I just slept. There wasn't anything wrong, nothing happened to me, I just didn't care. And I got to. I got my kids . . . I don't know what to do.

Truckers vocalized several physical health complaints and some mental health issues (e.g., anxiety, depression, stress), however when they were directly asked, "How would you rate your overall physical health on a scale from 1 (very poor) to 5 (excellent)?" most rated their health as excellent (27.1%) or above average (45.8%), 23.7% rated their physical health as average (3 on a scale of 1 to 5), and 3.4% rated their physical health as poor or very poor (2 and 1, respectively). When asked, "How would you rate your overall mental health on a scale from 1 (very poor) to 5 (excellent)?" responses were similar to the generally positive ratings of physical health; 42.4% of our sample rated their mental health as excellent, 33.9% as above average, and 18.7% as average, and 1.7% rated their mental health as poor. One trucker who rated his mental health as "very poor" gave this response when he was asked to elaborate:

Trucker: Well it's basically because of drugs.

Interviewer: Why would you say . . . explain that.

Trucker: Well, doing drugs you really don't have uh . . . you really don't, you know, you're really not yourself as far as mental. You know, you do a lot of things.

While most of the truckers in our sample (74.6%) reported that they had health insurance, a large percentage (23.7%) did not, and one trucker reported not knowing whether he had health insurance. These findings are not surprising with a sam-

ple of mostly company drivers, who often have health insurance through their employers.

Even though most truckers had physical and/or mental health issues, and most had health insurance, few had regular contact with health care providers. When asked, "How often do you get to see a doctor?" 64.4% reported having had a physical examination within the past year (which could have served as their medical certification examination), 25.4% reported having a checkup more than one year ago, and 5.1% reported having only their medical certification exam for the Department of Transportation.

Truckers' Alcohol and Drug Use

Truckers in our sample reported relatively low levels of alcohol use, with 23.7% reporting never using and 32.2% reporting occasionally using alcohol at any time. Occasional use varied from one alcoholic beverage per week to one per year or only on special occasions. For those who drank, beer was the alcoholic beverage of choice, followed by liquor and malt liquor. Eight (13.6%) truckers report daily use of alcohol, ranging from one to 12 beers a day; 23.7% reported weekly use of alcohol, ranging from a six-pack per week, mostly on weekends, to a 12-pack a week, spread out over a week; 5% reported alcohol use but declined to give an amount.

Conversely, drug use was found to be quite high among the interviewed drivers, with 88.1% reporting using drugs. Among those who reported drug use, 22.1% reported using daily or every other day, 35.6% reported using drugs several times per week, and 18.6% reported using drugs once per month. Of those who admitted drug use, 81.6% described using crack, either by itself or in conjunction with other drugs, 20.3% reported using marijuana, and 17% reported using cocaine. After crack, marijuana, and cocaine, other drugs of choice included crystal meth, speed, ecstasy, poppers, and pain pills. One driver described his perspective of the relationship between his profession and drug use:

What else you got on the road, you know, or life? I mean, what else you got? That's . . . that's why I say it's the trick with the truck driving thing. You know, drugs come along with it. I ain't met a trucker yet that don't do drugs. Either they going to do speed, you know what I mean . . . you get on the hard drugs man, these folks don't have a life. Seriously, they don't have a life.

Several truckers reported driving their trucks while "high" and some stated that their driving improved after smoking crack because they became more vigilant about others on the road around them, drove their trucks more slowly, and were generally more cautious. In response to the question, "do you drive while high?" one trucker said,

Yes, sir. I can smoke crack and drive with my leg in Dallas traffic . . . actually it makes me really more alert, because I check my mirror probably ten more times more than what I would if I wasn't smoking crack . . . I drive slower. Probably, when I ain't smoking it . . . I'm hauling ass. You know, I really don't give a damn much at all.

Another trucker's comments concur with the foregoing:

Yes, sir. Sure do. It doesn't really affect my driving at all . . . maybe I drive a little slower. Maybe try to be a little more careful when I am high. When I'm not high, I might tend to speed, you know, get a little reckless and careless.

Truckers' Family/Friend Relationships and Sources of Support

Nearly half of the truckers (49.2%) reported having good or great relationships with their family members; however, a quarter of the sample 25.4% reported a good relationship but added that it could be better, if they could see their family members more regularly. Further, 23.7% described their family relationships as either "not good," "strained," or "stressful." One trucker reported the difficulties of being away from home most of the time:

If I was home all the time I'd, you know, I'd be much uh . . . happier staying home than just being on the road all the time, you know? Being out every month and going back in is kind of difficult, but—like I said, being at home be much better if I was working and being back every week like some other drivers.

Parent-child relationships among truckers were found to be similar to overall family relationships. Over one third (32.2%) reported having "good" or "great" relationships with their children, 23.7% believed that their relationships were good but could be better, if only they could see their children regularly or more often, 18.6% reported having a poor relationship with their children, and 25.4% truckers reported having no children.

Discussion of friendships was similar to that about family relationships. The majority of drivers (39%) reported having good friendships, 10.2% believed that their friendships could be better, 27.1% stated that friendships were not good, citing "rarely see friends" and "distance away from home" as reasons, 15.3% stated they did not have friends, and 8.5% did not answer the question at all. According to one trucker: "I don't really have friends. I've got drug friends. But as far as a friend, I really don't have. I don't have time, you know, really I don't." Another said, "We ain't got no relationships. A relationship's when two people are together. But, when you're out on the road you ain't got nobody but yourself and the CB . . . It's just a lonely job."

The majority of the truckers (94.9%) in our sample reported having some form of emotional support in their lives. More specifically, drivers reported having "family" (62.7%) as their source of support, followed by "God" (44.1%), "self" (8.5%), which was often reported in addition to family and/or God, and "drugs and alcohol" (5.1%). Four (6.8%) truckers stated having "nobody" for support but three of these drivers added receiving support from an employer, drugs, or family and God. Additional sources of support that truckers identified were parents, ex-wives, Narc-Anon, other drivers, employers/supervisors, and sex workers.

Truckers' Experiences with Traumatic Life Events

Most of the truckers (71.2%) in our sample reported experiencing one or more recent traumatic life events. The most commonly reported traumatic life event was the death of a relative or someone close, which was identified by 30% of the sample. Divorce or separation was the next most frequently reported traumatic life event (15.3%), followed by financial trauma (11.9%), becoming the victim of violence (5.1%) by either having been shot or assaulted, being arrested or incarcerated (5.1%), witnessing violence or a fatal accident (3.4%), having family members become ill or involved in an accident (5.1%), having a heart attack (5.1%), and falling asleep while driving (1.7%).

In the following interview segment, a trucker described the effect of his wife's death:

Trucker: As far as my wife passing is concerned . . . [long silence]

Interviewer: Take your time. Take your time, no problem.

Trucker: [Crying].

Interviewer: [Offers trucker a tissue].

Trucker: Um . . . shit. I was doing so well.

Interviewer: That's all right; you're still doing well. You're still doing well. If it's that bad, you don't want to tell me about it, I'll skip it. Would you like me to do that?

Trucker: Well, you know, I really . . . [still crying]. Shit. I thought I was doing better, you know? I thought I had gotten over it. Guess I'm wrong.

Interviewer: Okay. It still affects you? Does it still affect you?

Trucker: Apparently so. I mean, I knew it did, but not to this extent.

Traumatic life events are likely to impact long-haul truckers just as they might individuals in other occupational segments, however, the combination of other stressors linked with the transportation environment (i.e., stress, anxiety, depression, loneliness), reduced access to supportive others (family and friends) and to health care providers for mental health promotion and treatment only serves to exacerbate drivers' responses to such events.

DISCUSSION AND IMPLICATIONS

Truckers experience unique and significant occupational stressors that impact their mental health. Truckers' stressors include driving conditions; mental health issues, such as loneliness, boredom, and time away from home; time pressures; fatigue; and perceived negative societal image. Our findings are supported by findings from other research with long-haul truckers (Renner, 2004).

Truckers must deliver their truckloads on time. Often, delays occur due to situations that are out of the truckers' control, such as traffic, road construction, or weather. Truckers skip mandatory rest time to meet their deadlines, which leads to chronic fatigue. Additionally, being away from family, friends, and usual family traditions and routines makes truckers feel apart from the family unit. Being faced with these stressors repeatedly may lead to increased levels of stress and anxiety

that, in turn, can lead to poor mental health and negative lifestyle choices (e.g., drug use and sex with sex workers). Links between the difficulties of spending lengthy periods away from home, availability of and easy access to drugs, and high levels of drug use by interviewed truckers shed light on an important public health and safety issue. Our findings are consistent with other work on this issue (Anderson & Riley, 2008).

Drugs are readily available to truckers, mostly in and around truck stops (Anderson & Riley, 2008; Davey, Richards, & Freeman, 2007). Our study was conducted at two urban truck stops located in economically depressed areas characterized by budget motels, adult entertainment establishments (e.g., strip clubs or “gentlemen’s clubs”), adult bookstores, bars, and fast-food restaurants. Persons who hustle for money and work around truck stops, called “lumpers” (persons who load and unload trucks) and “polishers” (usually homeless persons who work at truck stops shining the chrome on trucks for money) serve as willing intermediaries between the truckers and local drug dealers and sex workers, and get their cuts from facilitating transactions. In addition, truckers use CB radios and the Internet to make necessary connections at their expected layover locations, long before they arrive there. The very back row of parked trucks at truck stops—usually farthest away from the main building—is commonly referred to as “party row” because it is common knowledge that truckers are engaging in drug use and sexual activity during their down times.

Although the majority of our sample reported using drugs, generally, drug use by truckers is likely to be substantially underreported. Federal licensing rules and regulations, employer drug testing policies, and truckers’ fears of prosecution for illegal drug use are all potential reasons for carefully guarding or underreporting drug use. It is interesting that while truckers reported using drugs known for their quick metabolism (e.g., crack, cocaine, methamphetamines), they also reported using marijuana despite the greater risk associated with detection through routine drug screenings. The implication here is that Federal drug testing regulations that apply to the trucking sector may need to be reexamined for their efficacy.

Support is important for individuals to maintain good physical and mental health; social support from family, friends, or community has been shown to assist persons to maintain or seek treatment for healthy lifestyles (Haines, Beggs, & Hurlbert, 2002; Norbeck, 1981). However, in the case of long-haul truckers, this level of support is blatantly absent. In the absence of such social support, it becomes more critical to design and make available to truckers health and wellness programs that focus on substance use, abuse, and dependence, as well as programs on stress management and treatment for mental illnesses such as depression and anxiety.

Contrary to the stereotypical image of truckers as tough highway cowboys (Stratford, Ellerbrock, Akins, & Hall, 2000), the truckers in our study openly expressed sensitivity to negative treatment from the public, in general, and individuals they come in contact with in the course of their job, such as receiving clerks

at delivery sites. Truckers also identified sadness over traumatic life events such as death of a family member or friend and not being present when such losses occurred. More research on the use of technology for long-distance or remote interventions for grief and loss is warranted.

Another identified stressor, truckers’ exposure to violence, is consistent with other studies of trucker violence risk (Anderson, 2004; Renner, 1998). Frequent exposure to violence puts truckers at risk for individual physical harm as well as mental health issues. Knowing that one may be entering into a potentially violent situation can increase anxiety. Often truckers feel the need to carry some type of weapon, ranging from a ball bat to a knife or a gun. Many truckers identified witnessing violence of others but felt helpless to assist victims. More research is needed on the impact of violence on individual trucker health.

While many of the truckers reported their mental health as average or above, most expressed some form of frequent stress or anxiety, with one trucker acknowledging a problem with depression. These findings are similar to recent research on cross-country truck drivers in Hong Kong, which found high levels of depression and anxiety (Wong, Tam, & Leung, 2007).

Due to the nature of long-haul trucking, which takes and keeps drivers away from home for lengthy periods, truckers reported often delaying visits to their health care providers until they returned home. This finding is consistent with recent research on health conditions and health care access among long-haul truckers (Layne, Rogers, & Randolph, 2009). Health care could be provided in trucking settings such as truck stops. Mental health nurses could offer mental health promotion and general health promotion programs collaboratively with occupational health nurses in various trucking work settings (e.g., trucking terminals, warehouses, and truck stops).

Truck drivers have startlingly high mortality and morbidity rates due to occupation-induced stressors and health conditions (Apostolopoulos & Sönmez, n.d.; Saltzman & Belzer, 2003). Occupational risks for truck drivers become particularly evident when life expectancy between long-haul truckers and the general population are compared and dramatic differences emerge. The life expectancy for men in the general United States population is 75.1 years of age (Heron, Hoyert, Murphy, Xu, Kochanek, & Tejada-Vera, 2009), however for male unionized truck drivers it is 63 years of age, and for owner-operator (self-employed) truck drivers it is only 55.7 years (Saltzman & Belzer, 2003).

Our findings support Layne, Rogers, and Randolph’s (2009) recommendations to ensure occupational, physical, and mental health services by accommodating truckers with appropriate parking, improving online access to health information for truckers, and designing health fairs at truck stops and truck shows. In addition, telehealth technology has the potential to connect truckers with remote mental health clinics while health care clinics located at truck stops could increase access to care for long-haul truckers.

While the data collection in this study was done in the Southern portion of the United States, the home base identified by

participants was not limited to any one particular geographical location; therefore, truckers from different portions of the United States were included in this sample. Truckers in this sample were recruited from inner-city truck stops. Additionally, truckers were recruited based on their involvement in illegal or illicit behaviors (drug use, sex with sex workers). The stressors identified by this sample may not be representative of all truckers. Truckers interviewed for this study were long-haul drivers. Truckers who drive short regional routes may not identify the same stressors as those that report being home fewer than ten days a month. Female truckers were not included in this study and may have different stressors than male truckers.

Data for this study were collected at urban, inner-city truck stops. Since truck stops can vary in size, location, security, and amenities offered, the type of truck stop available on trucking routes may play a role in adding to or ameliorating stressors. Therefore, data gathered from truckers at urban inner-city truck stops may not be representative of truckers who stop at rural truck stops. More research is needed to identify the role settings play in the mental health of truckers. Additionally, truckers can be easily found at truck stops. Other areas with access to truckers, such as rest areas and trucking terminals, also should be explored.

CONCLUSION

Our findings from this study indicate that long-haul truckers experience a host of occupational stressors rooted in the transportation environment, such as long work hours and constant time pressures; social isolation and disrespectful treatment by shipping and receiving staff; driving in traffic, bad weather, road construction, or harsh driving conditions; fear of assault, robberies, and other forms of violence; and lack of job satisfaction and control. Mental health promotion and treatment for truckers is an important area of concern that must be examined within the broader context of the transportation environment, which can trigger, sustain, and exacerbate health problems for truckers. Particularly important to examine is the potentially fatal relationship between long-haul truckers' mental health and highway accidents. Studies of male truckers could have implications for men's health in other working-class populations.

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REFERENCES

- Anderson, D. G. (2004). Workplace violence in long-haul trucking: Occupational health nursing update. *AAOHN Journal*, 52, 23–27. Retrieved from <http://web.ebscohost.com/ehost/pdf?vid=3&hid=11&sid=1ce29bd0-722e-4fa4-a4ad-c4d495f4dfa1%40sessionmgr10>
- Anderson, D., & Riley, P. (2008). Determining standards of care for substance abuse and alcohol use in long haul truck drivers. *Nursing Clinics of North America*, 43, 357–365. doi:10.1016/j.cnur.2008.04.003
- Apostolopoulos, Y., & Sönmez, S. (n.d.). *Environmental and occupational barriers to a healthy trucking lifestyle*. Unpublished working paper, Mobility and Population Health Office, Emory University School of Medicine, Atlanta, Georgia.
- Apostolopoulos, Y., Sönmez, S., Belzer, M., & Shattell, M. (in press). Worksite-induced morbidities of truck drivers in North America: A research meta-analysis of an underserved population. *AAOHN Journal*.
- Apostolopoulos, Y., Sönmez, S., Shattell, M., Rothenberg, R., Kronenfeld, J., Miller, M., & Smith, D. (in review). Sexual mixing, drug exchanges, and disease risk among truckers in North America. *Culture, Health and Sexuality*.
- Apostolopoulos, Y., Sönmez, S., Shattell, M., Rothenberg, R., Weitz, R., & Doe, J. (2009). Infection risk along U.S. highways? The case of a "truckchaser" cruising for truckers. *International Journal of Sexual Health*.
- Davey, J., Richards, N., & Freeman, J. (2007). Fatigue and beyond: Patterns of and motivations for illicit drug use among long-haul truck drivers. *Traffic Injury Prevention*, 8(3) 253–259.
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). *Writing ethnographic fieldnotes*. Chicago: University of Chicago Press.
- Essenberg, B. (2003). *Violence and stress in the transport sector*. (Working paper no. 205). Geneva: International Labour Office, Sectoral Activities Programme. Retrieved from <http://www.ilo.org/public/english/dialogue/sector/papers/transport/wp205.pdf>
- Federal Motor Carrier Safety Administration of 1999, 49 U.S.C. §1572.109. Retrieved from <http://www.fmcsa.dot.gov/rules-regulations/administration/fmcsr/fmcsrruletext.aspx?chunkKey=09016334800128b3&keyword=mental>
- Federal Motor Carrier Safety Administration of 1999, 49 U.S.C. § 391.41. Retrieved from <http://www.fmcsa.dot.gov/rules-regulations/administration/fmcsr/fmcsrruletext.aspx?section=391.41>
- Federal Motor Carrier Safety Administration. (2007). Rules and regulations: Mental capacity Part 1572.109. <http://www.fmcsa.dot.gov/rules-regulations/administration/fmcsr/fmcsrruletext.aspx?chunkkey=09016334800128b3&keyword=mental>
- Federal Motor Carrier Safety Administration. (2008). Rules and regulations: Physical qualification for drivers. FMCSA 49 CFR 391.41 (b. 9). <http://www.fmcsa.dot.gov/rules-regulations/administration/fmcsr/fmcsrruletext.aspx?section=391.41>
- Haines, V. M., Beggs, J. J., & Hurlbert, J. S. (2002). Exploring the structural contexts of the support process: Social networks, social statuses, social support, and psychological distress. In J. L. Albrecht (Series Ed.), *Advances in medical sociology series* (vol. 8, pp. 269–292). doi:10.1016/Si057-6290(02)80030-4
- Heaton, K. (2005). Truck drivers' hours of service regulations: The collision of policy and public health. *Policy, Politics, & Nursing Practice*, 6, 277–284. doi:10.1177/1527154405282841
- Heron, M. P., Hoyert, D. L., Murphy, S. L., Xu, J. Q., Kochanek, K. D., & Tejada-Vera, B. (2009). Deaths: Final data for 2006. *National vital statistics reports*, 57(14). Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_14.pdf
- Layne, D., Rogers, B., & Randolph, S. (2009). Health and gender comparisons in the long-haul trucking industry. *AAOHN Journal*, 57, 405–413. Retrieved from <http://web.ebscohost.com/ehost/pdf?vid=2&hid=4&sid=e4a814d3-ddda-4f9c-a8c6-95075e99e1da%40sessionmgr10>
- Norbeck, J. S. (1981). Social support: A model for clinical research and application. *Advances in Nursing Science*, 3, 43–59.
- Ouellet, L. J. (1994). *Pedal to the metal*. Philadelphia: Temple University Press.
- Patton, M. (1990). *Qualitative evaluation and research methods*. Newbury Park, CA: Sage.
- Pereira da Silva, F., Nunes de Pinho, R. S., Tulio de Mello, M., Saes de Bruin, V. M., & Carvalho de Bruin, P. F. (2009). Risk factors for depression in truck drivers. *Social Psychiatry and Psychiatric Epidemiology*, 44, 125–129. doi:10.1007/s00127-008-0412-3
- QSR International Pty Ltd. (2008). *NVivo 8*. Australia: QSR International Pty Ltd.
- Reed, D. B., & Cronin, J. S. (2003). Health on the road: Issues faced by female truck drivers. *AAOHN Journal*, 51, 120–125. Retrieved

- from <http://web.ebscohost.com/ehost/pdf?vid=2&hid=4&sid=1628313e-d668-4a7d-a5a0-e69bfc7728fa%40sessionmgr10>
- Renner, D. A. (1998). Cross-country truck drivers: A vulnerable population. *Nursing Outlook*, 46(4), 164–168.
- Renner, D. A. (2004). Regular route and irregular route cross-country truck drivers' health: Barriers and behaviors. Doctoral dissertation, The University of Iowa.
- Saltzman, G. M., & Belzer, M. H. (2003). *Truck driver occupational safety and health: 2003 Conference Report and Selective Literature Review* (DHHS [NIOSH] publication 2007–120). Retrieved from <http://www.cdc.gov/niosh/docs/2007-120/pdfs/2007-120.pdf>
- Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health*, 23, 334–340. doi:10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G
- Stasko, J. C., & Neale, A. V. (2007). Health care risks and access within the community of Michigan over-the-road truckers. *Work*, 29, 205–211. Retrieved from <http://web.ebscohost.com/ehost/pdf?vid=2&hid=4&sid=3f6647a7-969d-48af-8f38-69d87fe942f9%40sessionmgr13>
- Stephoe, A., & Brydon, L. (2005). Associations between acute lipid stress responses and fasting lipid levels 3 years later. *Health Psychology*, 24, 601–607. doi:10.1037/0278-6133.24.6.601
- Stratford, D., Ellerbrock, T. V., Akins, J. K., & Hall, H. L. (2000). Highway cowboys, old hands, and Christian truckers: Risk behavior for human immunodeficiency virus infection among long-haul truckers in Florida. *Social Science & Medicine*, 50, 737–749. doi:10.1016/S0277-9536(99)00335-4
- Sullivan-Bolyai, S., Bova, C., & Harper, D. (2005). Developing and refining interventions in persons with health disparities: The use of qualitative description. *Nursing Outlook*, 53, 127–133. doi:10.1016/j.outlook.2005.03.005
- U. S. Department of Labor, Bureau of Labor Statistics. (n.d.). Occupational employment statistics Retrieved from <http://data.bls.gov:8080/oes/search.do;jsessionid=6230c4ae70dd522b5d35>
- Wong, W. C. W., Tam, S. M., & Leung, P. W. S. (2007). Cross-border truck drivers in Hong Kong: Their psychological health, sexual dysfunctions and sexual risk behaviors. *Journal of Travel Medicine*, 14, 20–30.