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HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH | CENTER FOR WORK, HEALTH, & WELL-BEING

RESEARCH BRIEF

How Working Conditions Shape Professional Drivers' Safety and Well-being in a Chilean Transportation Company

Listening to Drivers and Managers to Guide Workplace Improvements

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At a Glance

This study examined how working conditions shaped the safety, health, and well-being of professional drivers in a Chilean transportation company. Researchers used interviews and focus groups with drivers, supervisors, union representatives, safety staff, and company leaders to understand how scheduling, communication, and work organization affected drivers' health and safety. The study showed how structured input from workers and managers can reveal specific pathways linking working conditions to health and safety risks in a particular workplace. These insights informed the design of a targeted organizational intervention to improve worker safety, health, and well-being, guided by information from workers and managers about their working conditions.

WHY THIS RESEARCH MATTERS

Professional drivers experience higher rates of fatigue, stress, musculoskeletal disorders, and chronic disease compared to other workers. While research shows that working conditions such as long or irregular schedules, time pressure, and sedentary work play a central role in these outcomes, organizations often struggle to identify which aspects are most relevant in their own workplaces.[1–7]

Although surveys can identify general patterns, they may not reveal which working conditions are driving health and safety risks in a particular organization. Structured opportunities for workers and managers to discuss workplace challenges can help employers identify the conditions that matter most and target improvements where they are likely to have the greatest impact.

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RESEARCH CONTEXT

HOW THE RESEARCH WAS CONDUCTED

The *On Board* study took place in a Chilean transportation company employing about 450 drivers. Researchers from the Harvard T.H. Chan School of Public Health Center for Work, Health, & Well-being gathered input directly from drivers and other key employee groups to identify problems and help shape possible solutions. To do this, the researchers conducted six focus groups with drivers and eight in-depth interviews with supervisors, safety staff, union representatives, and company leaders.

Participants discussed their work experiences, perceptions of their working conditions, health concerns, and safety risks as well as how these were interconnected. Researchers analyzed the information collected in these discussions using qualitative research methods to identify key themes and then developed a model illustrating the relationships between working conditions and the safety, health, and well-being of drivers. [See Figure 1]

WHAT THE RESEARCH REVEALED

Structured discussions with drivers, managers, and other organizational stakeholders identified three main ways working conditions shaped safety and health risks.

- **Scheduling practices contributed to fatigue and stress.** Irregular schedules, demanding routes, and limited rest between shifts created chronic fatigue and safety risks. Some drivers finished late-night shifts and returned early the next morning, leaving little time for sleep, while repeated assignments to difficult routes increased time pressure and stress.
- **Inadequate trust discouraged safety reporting.** Although the company had an emergency "stop work" code for reporting fatigue or unsafe conditions, drivers often hesitated to use it because they feared negative reactions from supervisors when raising concerns.
- **Work organization made healthy habits difficult.** Fatigue, long hours spent driving with limited breaks, and irregular work schedules made it difficult for drivers to eat well, exercise, or get adequate rest. Drivers often relied on coffee, cigarettes, or easily accessible packaged foods to stay awake during long shifts. Participants reported that these behaviors contributed to their chronic health conditions such as obesity, hypertension, and diabetes.

Taken together, these discussions helped map how working conditions contributed to safety, health, and well-being risks experienced by this population. For instance, participants described how scheduling practices contributed to fatigue, which in turn shaped stress, health behaviors, and safety risks. These insights informed the design of a targeted organizational intervention to improve worker safety, health, and well-being.

Figure 1: Worker safety, health, and well-being concerns and their perceived root causes

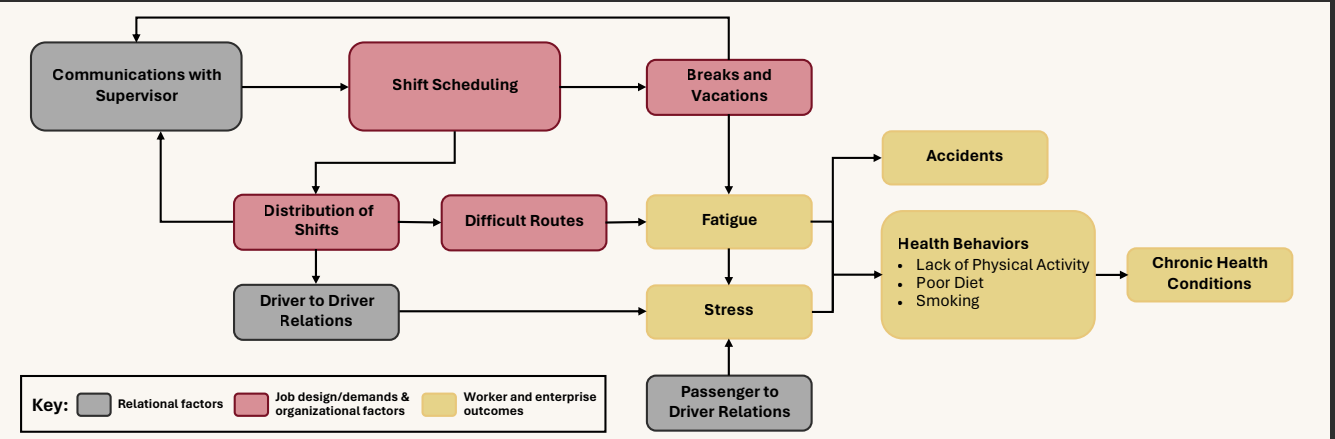

Figure is adapted from Peters SE et al. Working conditions influencing drivers' safety and well-being in the transportation industry: "On Board" program. *International Journal of Environmental Research and Public Health.* 2021; 18(19):10173. https://doi.org/10.3390/ijerph181910173

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IMPLICATIONS FOR EMPLOYERS AND WORKPLACE HEALTH LEADERS

Use structured discussions to uncover hidden risks.

Conversations with workers, managers, and other key personnel can reveal work-related risks that may not appear in surveys or administrative data, including trust gaps, scheduling pressures, and barriers to reporting safety concerns.

Address working conditions that drive fatigue and stress.

In this study, irregular schedules, demanding routes, and limited recovery time were key contributors to fatigue, stress, and chronic health risks. These findings suggest that employers should examine how work is organized, including scheduling, workload, and opportunities for rest and recovery.

Use worker input to target workplace changes.

Structured discussions with key employee groups can help organizations identify which working conditions most need attention and design improvements that address their root causes, rather than only responding to surface-level symptoms.

KEY TAKEAWAY

Working conditions strongly shape drivers' safety, health, and well-being, but the specific risks may vary across organizations. Gathering input directly from workers, managers, and other stakeholders can help organizations identify priority working conditions to design more effective workplace practices, programs, and policies.

WHAT HAPPENED NEXT?

The company later implemented the intervention developed from this research. A follow-on study examined how the organization built capacity to support ongoing workplace improvements and sustain worker participation, despite periods of political and social unrest and the COVID-19 pandemic in Chile.

For more on the follow-on study, see the companion brief: "*Building organizational capacity to improve worker health and well-being: Lessons from a transportation company during COVID-19 and social and political unrest in Chile.*"

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The Harvard T.H. Chan School of Public Health Center for Work, Health, & Well-being is a multidisciplinary NIOSH *Total Worker Health*® Center of Excellence, advancing worker safety, health, and well-being through research and dissemination of evidence-based practices, programs, and policies.

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