Feature

Occupational Safety and Health in the Temporary Services Industry: A Model for a Community–University Partnership

NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy
2017, Vol. 27(2) 246–259

DOI: 10.1177/1048291117712545
journals.sagepub.com/home/new
SAGE

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Abstract

Workers in the temporary staffing industry face hazardous working conditions and have a high risk of occupational injury. This project brought together local workers' centers and university investigators to build a corps of Occupational Health Promoters (OHPs) and to test a survey tool and recruitment methods to identify hazards and raise awareness among workers employed by temporary staffing companies. OHPs interviewed ninety-eight workers employed by thirty-three temporary agencies and forty-nine client companies, working mainly in shipping and packing, manufacturing, and warehousing sectors. Surveys identified workplace hazards. OHPs reported two companies to OSHA, resulting in several citations. Partners reported greater understanding of occupational safety and health challenges for temporary workers and continue to engage in training, peer education, and coalition building.

Keywords

temporary services industry, temp workers, community-based participatory research (CBPR), OSHA

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Introduction

The temporary staffing industry (TSI) has grown considerably in the past ten years, up from 1.2 million workers and 0.08% of the total U.S. workforce in 2005 to an average of 2.9 million workers and 2% of the nation's total workforce in 2015.[1] The TSI is expected to add four hundred twenty-five thousand jobs to the economy by 2024—a 15.4% growth rate in this sector.[2] Temporary staffing is characterized by a "triangular" employment relationship between the temporary staffing agency (temp agency), the client company, and the worker;[3] temp agencies handle human resources and benefits for client companies, including hiring and terminations, withholding of employment taxes, and provision of insurance coverage including workers' compensation. The purported benefit for client companies is the ability to grow and shrink their workforces expeditiously; to "try out" workers before directly hiring them; and to avoid administrative costs associated with human resources functions.[4] Although temp agencies can serve to match worker skills to employment opportunities, this employment structure changes the employer–employee power dynamic, in that once temp workers are placed, their work activities are no longer under direct control of their employer (the temp agency), and the company supervising their work (the client company) does not have a direct employment relationship with the workers. Task-specific training, for both job protocols and health and safety protections, is generally the responsibility of the client company, as is reporting of occupational injuries to the Occupational Safety and Health Administration.[5] However, workers' compensation coverage is the responsibility of the temp agency employer, breaking an important feedback loop that serves to foster attention to health and safety protections. In addition, the flexibility afforded temp agencies in deciding whether to re-hire a worker each day serves as a disincentive for workers to question or report hazardous working conditions or occupational injuries.[6] Employment through a temp agency garners lower wages than direct employment,[7] limits employment benefits,[8] and has been shown to put workers at greater risk for occupational injury as compared to their directly hired counterparts.[9]

The TSI operates in volume, contracting with multiple companies, often in a variety of sectors. Temp workers are dispatched to every sector of the economy, with over 40% sent to work in warehousing and manufacturing settings.[8] Private sector warehousing had a rate of 5.2/100 full-time-equivalent (FTE) OSHA recordable injuries in 2014, and manufacturing had a rate of 4.0/100 FTEs; private industry, overall, has a rate of 3.2/100 FTEs.[10] In 2014, 7.3% of workplace fatalities occurred in manufacturing.[11]

While OSHA mandates provision of a safe and healthy work environment for all workers, the transient nature of temp employment makes it difficult to assure that these workers are receiving appropriate health and safety oversight and training.[12] Workers' centers are community-based service and advocacy

organizations that have emerged alongside traditional labor unions to address labor rights and working conditions for low wage, minority, immigrant, and informal sector workers.[13] Workers' centers focused on the TSI are perfectly positioned to conduct outreach and serve as community-based advocates for temp workers.

This project brought together workers, worker advocates, and academics to promote health and safety in client companies served by the TSI. The aims of this work were: (1) to build a corps of temp worker activists armed with knowledge about workers' rights and occupational safety and health (OSH) and ready to act; and (2) to develop and test a survey tool and recruitment method which temp worker activists could use to identify hazards and raise OSH awareness among their peers in manufacturing and warehousing.

Approach

Workers' Centers

Workers' centers have grown considerably in recent decades and now number more than two hundred across the US Workers' centers serve precarious workers, whose employment is defined by nonstandard work arrangements, job insecurity, hazardous working conditions, and lack of benefits.[14] Chicago Workers' Collaborative (CWC) and Warehouse Workers for Justice (WWJ) are two workers' centers that focus primarily on African American and Hispanic workers hired through temporary staffing companies and dispatched to client companies in the manufacturing and warehousing sectors. For the last several years, CWC and WWJ have collaborated with university partners to address OSH issues in the TSI. Together they have developed training and outreach materials and co-facilitated training for temp workers. Much of this activity has occurred during summers, and graduate student interns recruited through the Occupational Health Internship Program have played an important role in project development and implementation.[15,16] The university has provided the workers' centers with technical assistance on hazard identification, legal remedies, and medical referrals for injured workers.

Recruitment and Training of Occupational Health Promoters (OHPs)

For this project, partners recruited temp workers active in CWC and WWJ to become OHPs. Recruitment was based on availability and interest, demonstrated or potential leadership qualities, and the potential for building both individual and organizational capacity to address OSH, as well as labor rights. CWC recruited four male OHPs, and WWJ recruited seven males and three females, for a total of fourteen. All OHPs were African American; they were compensated for their time. The workers' centers and university personnel

developed a training program based on previous projects with Latino temp workers (unpublished). The three two-hour sessions included an introduction to OSHA and workers' rights under OSHA, how to administer a survey, how to maintain ethical standards in collecting data, and how to identify and characterize hazards in workplaces. Adult education techniques, using OHPs' own experience and learning styles, were incorporated. This resulted in interactive exercises—practicing survey administration, identifying and discussing hazards in their own workplaces, administering an informed consent document—as well as discussions about barriers to survey administration.

Survey Tool Development

Partners developed, piloted, and administered a survey for workers to identify staffing companies, client companies where they were placed in the prior six months, job tasks, workplace hazards, knowledge of labor rights, and injury experience in manufacturing and warehousing settings. After reviewing OSHA's National and Local Emphasis Programs, sections related to powered industrial vehicles and hazardous machinery were added.[17,18] The final survey tool included forty-eight questions regarding demographic information, employment history, safety training history, experience with reporting of hazards and injuries, and relevant workplace hazards. After testing the ability of the OHPs to use the tool during role plays, adjustments were made in formatting to ease survey administration and in the wording of questions to improve understanding by potential respondents (i.e., internal validity). Images of hazardous working conditions were shown to interviewees to assure understanding of the hazards being described.

Interviews of Temp Workers

Surveys were administered over a four-week period in several low-income African American communities in and near Chicago. OHPs were responsible for finding temp workers from among their own contacts, near temp staffing offices, and on buses used to transport workers to client companies. When OHPs exhausted their contacts, workers were recruited via door knocking in neighborhoods where a large number was likely to be found. In these cases, the interviews were conducted at various locations including workers' homes and in community settings. For the most part, student interns were present at interviews. Each interview took from fifteen to thirty minutes. If the interviewee worked on a powered industrial vehicle or a machine, OHPs asked the questions relevant to these hazards. Interns encouraged OHPs to probe beyond the survey questions to gather more details about workplace conditions. OHPs and student interns debriefed after each interview to address challenges and misconceptions that arose during the process, and to identify successful techniques and areas

for potential improvement. After compiling a list of identified client companies, interns searched the OSHA Establishment Search database to determine whether any of these enterprises had been cited by OSHA.[19] This information was used to enhance the profile of the companies.

Data Management and Analysis

Interns entered survey data and OSHA data into MS Excel. Variables in the spreadsheet included hazards, such as heavy lifting, repetitive motion, cluttered aisles, risk of falling objects, risk of frostbite, forklifts, electricity, handling of chemicals, and risk of falling from high places. Other variables included previous work-related injuries or illnesses experienced by the worker and whether or not that injury or illness had been reported to the temporary agency and/or the host employer.

Second Interviews

Interns and OHPs identified companies with probable OSH violations. To obtain sufficient details for filing a complaint, they conducted follow-up interviews with the surveyed workers to obtain more careful descriptions of their working conditions. The interviews were open-ended, asking for labeled drawings of machinery or work areas that would assist in discerning hazardous conditions. They submitted complaints to the OSHA Area Director whose jurisdiction covered the violating company's location.

Follow-Up Interviews With Participants

At the end of the project, leaders of the two workers' centers were interviewed about the ways in which capacity was developed in their organizations and about the challenges evident from this work. They were asked about their relationships with university personnel and students and with the OHPs, whether and how their perception of OSH changed, their opinion of the role of OSHA and their connection to this agency, their assessment of the knowledge and skills of the OHPs, and whether and how the project built leadership or membership in their organizations. They were invited to share other perceptions of this Participatory Action Research, as well. Four of the most active OHPs were interviewed about their experiences in this project: They were asked about knowledge and skills gained; what the project and their role in it meant to them; how they are using newly gained knowledge and skills currently and how they intend to use these in the future; their perceptions of the workers' centers; and their perceptions of students and university personnel in terms of whether and how the partnership enhanced their skills or provided useful advocacy.

Findings

Demographic Analysis

Twelve OHPs interviewed three to twenty-two workers for a total of ninety-eight workers; two of the trained OHPs did not conduct interviews. Sixty percent of the interviewees were male, ranging in age from eighteen to seventy-two years, with the majority (63%) between eighteen and thirty-nine years old. The majority surveyed were African American (97%). Respondents were categorized in the warehousing (51%) or manufacturing (43%) sectors; the remaining interviewees (5%) worked in railroad, waste management, and housing authority. Most interviewees (61%) worked in packaging and shipping departments in both sectors, combined. There were thirty-three different staffing agencies and forty-nine warehouses or manufacturing companies identified.

Hazards

Heavy lifting, repetitive motion, cluttered aisles, slippery floors, and risk of being struck by falling objects were the most frequent hazards cited by warehouse and manufacturing workers (Figure 1). Forklift concerns were cited by twelve workers, reporting a lack of specific forklift training. Of the workers that reported operating a machine, serious hazards were identified, including exposure to unguarded machine parts and inadequate or absent lockout-tagout procedures.

Occupational Safety and Health (OSH) Training

Many workers (n = 35; 36%) reported that they did not receive OSH training at either the worksite (by the client company) or the staffing agency; only 32%

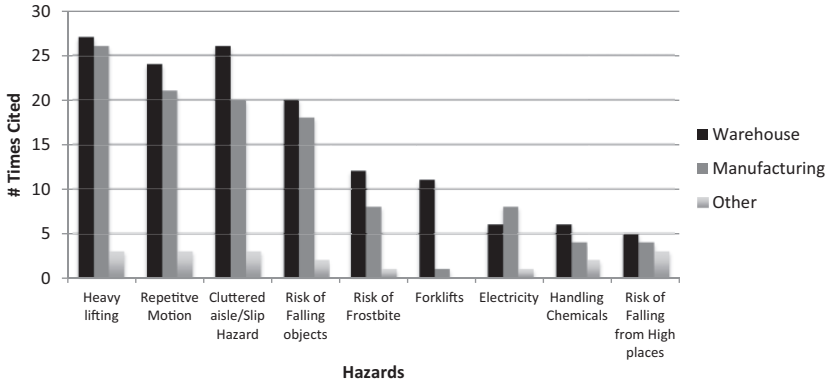

Figure 1. Frequency of hazards cited by 98 temporary workers, by economic sector.

received training by the staffing agency and 47% by the client company. Half of the workers that reported receiving training stated that it was either "short" or 30 to 60 min. Some of the workers reported that the training did not relate to the position they were hired for or the training was not given in a language that they understood. At least one worker provided an example of a training video that was entirely in Spanish, despite the fact that there were a number of workers who did not speak or understand Spanish.

Injuries

Sixteen interviewees (16%) reported having been injured at work, and twelve of those (75%) reported the injury to management. Only four of the twelve workers stated that it was recorded by the company, with eight stating that management either "did nothing" or "sent them back to work." Of eleven workers that reported forklift hazard concerns, ten witnessed an injury by a forklift. The injuries included a worker's foot being rolled over or caught between the vehicle and equipment, being struck by or falling from a vehicle. Two witnessed injuries by a stationary machine.

Company Profiles and OSHA Violations

Profiles of client companies were developed based on worker interviews, review of OSHA citation criteria, and review of OSHA citation records. These profiles often had the input of multiple interviewees to help create a more accurate and detailed picture of each of the client companies. The companies with probable violations were described more carefully in follow-up interviews with workers. Figure 2 shows a profile of one of the companies that went on to be investigated and cited by OSHA. Surveys revealed several companies at which workers reported hazards that seemed to violate OSHA standards. Two OHPs who worked at two different sites of one of these companies came forward to file a complaint with OSHA based on their own experiences and the surveys. One OHP filed complaints about a lack of a lockout/tagout protocol and a lack of training by the temp employer. The second OHP reported exposure to excessive noise, lockout/tagout violations, chemical inhalation exposure, and also that he had been trained by his temp employer for placement at a company different than the one where he was actually placed. OSHA initiated an investigation, citing the client employer for violation of the Hearing Protection standard, the lockout/tagout standard, and machine requirements. OHPs reported that the inspection notice given to the employer five-days in advance of the inspection allowed the owner time to clean up the plant, send regularly scheduled temp workers home

Name	xxx
Addresses	xxx and xxx
Staffing agencies that sent workers here	xxx
Type of workplace/description of work done here	
Most workers interviewed from these locations are packers (pack items into boxes, shrink wrap items, stack pallets). There are conveyors that carry items from the production area, where there are large machines that produce items (like cups, lids, etc.). Forklifts pick up large stacks of boxes once they are filled with items.	
Frequently cited safety concerns (from temporary workers)	
• No safety training for machines – "learn as you go" mentality described by workers. • Machine that pushes items through conveyor gets jammed easily, and workers are often the ones to unjam the machine (even though a designated tech is supposed to do the unjamming – he is often not around and not watching workers). Workers turn off the machine to unjam it, but other half of machine continues moving. There is a sign that says not to place hands in the machine because of amputation threat, but no guard that makes it impossible to do so. The greatest risk for putting hands in is when machine is jammed and workers are unjamming it. Lockout/tagout procedures do not seem to be used (workers could not identify them). • Lots of heavy lifting and related ergonomic issues. • Forklift concerns: there are no separate lanes for forklift traffic and for pedestrians (did not survey many workers who drove forklifts but there are forklifts in use at this worksite).	
Previous violations	
There is an open complaint at this worksite (other company locations have several previous violations). There are no previous violations (in the past 5 years) at either address.	

Figure 2. Profile of one company employing a temporary services worker interviewed in this study.

during the inspection process, and take some of the hazardous machinery off-line. The reporting OHPs and several of their co-workers subsequently had their employment hours cut and they filed a ''whistleblower'' complaint; the outcome of the whistleblower complaint is pending.

Discussion

Policy Initiatives

The US Occupational Safety and Health Administration has recently launched a temporary worker initiative due to concerns about the high rate and under-reporting of injuries among temp workers, highlighting the dual employer relationship and clarifying the roles and responsibilities of temp agencies and client companies.[12] OSHA has issued news releases of cases of serious injuries and

fatalities virtually every month since the Temporary Worker Initiative was released. Because of this alarming phenomenon, the American Public Health Association issued a policy statement regarding protection of temporary workers in 2014.[20]

Hazards, Training, and Injuries in Client Companies Employing Temp Workers

The hazards typically encountered by workers in warehousing are associated with forklifts, loading dock logistics, conveyor belts, materials storage, manual lifting, chemical spills from warehoused containers, electrical hazards, and others.[21] Temp workers in this study noted these hazards, similar to those identified in other community-based studies.[15,22–24] Typical manufacturing hazards come from operating machinery, including conveyor belts, packaging and cutting machines, and others.[25] Machine guarding and lockout-tagout are the two major engineering and administrative controls required to prevent associated injuries.[26,27] Workers in this project reported lack of training on machine guarding and lockout-tagout procedures. At one of the client companies identified, a citation for lack of adequate training by both the client company and by the staffing agency had been issued during the prior year, in accordance with OSHA's Temporary Worker Initiative.[12,28]

Capacity Building

There is an array of evidence demonstrating capacity built among the OHPs, the workers' centers, and the university participants. Fourteen temporary workers engaged in six hours of training to prepare as OHPs in this project. The interactive training addressed workplace hazard identification, basic OSHA rights, research methods, and ethics. Twelve of the fourteen continued their learning in the field as they went on to recruit workers and conduct formal interviews using a tool they helped validate. Graduate students worked with the OHPs and debriefed collaboratively on the delivery and content of the interviews; these activities likely served to deepen the OHPs' outreach capacity, including their ability to recruit participants, to find appropriate and confidential venues for conducting interviews, to develop or improve interviewing skills, and to encourage their attention to ethical practices. The students, who will be entering the public health workforce, described a rich experience of learning about workers' rights, OSHA, and occupational health, overall.

Interviews with workers' center leadership elucidated the value and the challenges in this project. Staff described the ways in which the project helped develop new leaders within the organization. In the year following the project, the two most active OHPs continue to play active roles in one workers' center, one as the

new lead organizer for African American workers, and the other as a dedicated member who speaks publicly about the hazardous working conditions and retaliation that he faces for calling attention to these conditions as a temporary worker at his (client company) workplace. One of the greatest challenges that low budget, grassroots workers' centers reportedly face is maintaining contact with workers contacted through projects such as this one. Without the resources necessary to engage student interns or to increase staff size, their outreach capabilities are limited by the time constraints and willingness of volunteer OHPs.

Interviews with the OHPs also elucidated the successes and challenges of capacity building. Four OHPs who conducted interviews reported that they had gained a greater understanding of their rights related to health and safety in the workplace. By explaining the roles of the workers' centers to other temporary workers, the OHPs reported that they had a better understanding of the importance of workers' centers in efforts to gain fair and safe employment.

OHPs used strategies of door knocking in neighborhoods where there would likely be a large number of temporary workers; several of these areas included the neighborhood where the OHPs, themselves, lived. One of the OHPs took advantage of the foot traffic in a neighborhood convenience store: Most of the surveys he collected were done by asking patrons whether they worked in the TSI. In exchange for an interview space in the back room of the store, this OHP voluntarily assisted the owner in selling and cleaning up. Another OHP surveyed workers that came to a local barbershop. OHPs interviewed workers on the bus transporting them to the client companies, as well. In summary, OHPs developed creative approaches to recruiting participants for the survey, demonstrating the essence of Community-Based Participatory Research (CBPR), where community members are integral in the design and execution of population-level intervention studies.

University personnel and student interns developed enhanced capabilities in the realm of CBPR. Development and refinement of a survey tool for readability and ease of use by OHPs required responsiveness to the needs of community partners and workers and, consequently, enhanced their ongoing relationship with workers' center staff. The survey tool, which has increased validity and demonstrated value, is now available for future use by this partnership in rigorous, ongoing research, and also for dissemination to other partnerships with a similar focus. University personnel adapted previously developed training materials and conducted training sessions for workers' center audiences; the outcomes of this study—data collection, peer outreach and education, a focus for interacting around workplace health and safety issues, and the filing of an OSHA complaint—support its usefulness in developing a corps of OHPs on issues related to work in the TSI.

Finally, all of the partners sharpened their understanding of OSHA regulations covering manufacturing, warehousing, workers in the temporary services

industry, the OSHA complaint and inspection process, and policies to implement the OSHA Temporary Worker Initiative. This enabled them to act on the information collected by the OHPs and to effect change.

Potential for Replication

Partnerships between academics and community-based organizations are limited in certain ways by their very nature: Partnerships that take on activities leading to advocacy-oriented interventions have many "moving parts" that are impossible to replicate in a rigorous fashion. Notably, this project was done in urban and suburban geographic areas in the Upper Midwest, in one OSHA Region with three area offices, with a partnership of one university, two student interns, and two workers' centers. There are certainly unmeasured differences in partners, in state and local OSHA practices, in employment practices, and in cultural norms around employment in different regions of the country. Furthermore, the target audience of Midwestern African American temp workers may be different than temp workers of other races, ethnicities, and immigration statuses in this and other areas. Also, temp agency placement and work in warehousing and manufacturing may vary regionally in terms of hazards, training practices, and other features. Since there are few published works that have applied this kind of rigor and breadth, it is hard to gauge generalizability. However, similar collaborative advocacy efforts are going on in the country.[29–31] The survey tool and training materials used in this project could be easily adapted for other settings. Additionally, the recruitment techniques reflect the knowledge, resourcefulness, and creativity of the OHPs and could serve as examples for other groups trying to achieve similar ends.

Occupational Health Policy Implications

The literature on hazards of temporary workers is scant but should increase as employment via the TSI increases. The method described in this paper for identifying hazards experienced by temp workers in production, packing, and shipping areas of factories and warehouses builds on research and advocacy work reported elsewhere.[16]

OSHA's Temporary Worker Initiative is a signal to employers that the government is aware of the increasing employment of temp labor in blue collar settings and notifies temp and client companies that they have responsibilities as joint employers.[12] This project shows how knowledge of Federal and State OSH regulations and of OSHA emphasis programs can be leveraged to guide interventions and, ultimately, improve working conditions for temp labor. A formalized role for OHPs charged with surveillance, reporting, and advocacy in the OSHA investigation process promises better enforcement outcomes and, ultimately, safer workplaces.

Workers' centers are small organizations that must make strategic and creative decisions to effectively utilize resources for action-based research. Partnering with university investigators and students to shape projects on health and safety is a model that has been in place for more than a decade.[32–34] This study adds to the body of literature that informs this approach.

Ultimately, the capacity of workers' centers to deal with the challenges they face in helping workers to achieve safer working conditions rests with their ability to recognize, draw upon, and encourage the talents of their members. Specifically, workers' centers can enhance workers' communications skills and can develop and utilize effective, user-friendly tools to gather information, identify issues of concern and to support workers as they take action. ''OHP'' is a model that has been shown to be effective in other occupational health settings.[34–36] Workshops on hazard identification and workers' health and safety rights and simple survey tools such as the one used in this study can assist in dealing with these challenges. This work is ready for adaptation and replication in other regions of the country.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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