



Published in final edited form as:

J Immigr Minor Health. 2022 August ; 24(4): 987–995. doi:10.1007/s10903-022-01329-5.

Perceived Discrimination and Injury at Work: A Cross-Sectional Study among Latino Day Laborers

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Abstract

Background: Given the stigma of their undocumented status and their high prevalence of workplace injury, understanding the impact of discrimination on Latino day laborers (LDLs) is a critical health issue.

Methods: We surveyed LDLs (N=149) and assessed their sociodemographics, experiences of and perceived reasons for discrimination, and work-related injury. A logistic regression examined the association between discrimination and injury, adjusting for sociodemographics. Next, Chi-square tests identified perceived reasons for discrimination associated with injury which were then included in a second logistic regression to test their association with injury, adjusting for discrimination and sociodemographics.

Results: Participants reported a work-related injury (42%) and experiences of discrimination (81%). Discrimination was associated with injury in the first model (aOR=2.25, $p=.049$), and discrimination attributed to immigration status was associated with injury in the second model (aOR=5.04, $p=.019$).

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Conflict of Interest

The authors declare that they have no competing interests.

Ethical Approvals

This study received approval from the Committee for the Protection of Human Subjects at The University of Texas Health Science Center at Houston (Study HSC-SPH-18-0337). All participants provided informed consent to participate in the study.

Discussion: Injury prevention programs should account for perceived mistreatment to reduce LDL risk for injury at work.

Keywords

Latino day laborers; work-related injury; discrimination; immigrant health; occupational health

Introduction

Discrimination, and the underlying structural racism, is a consistent stressor in the lives of immigrant Latinos (1). Driven by macroeconomic and political forces, immigrant workers from Mexico and Central America leave their families to undertake a perilous journey to the United States (US) in an attempt to obtain work that will allow them to send money back to their families (2). Once in the US, they undertake poorly paid and mostly manual labor jobs in a system of labor that offers them little or no protection. The majority of these workers are undocumented and lack English proficiency, making them vulnerable to employers who may be exploitative and abusive and whose treatment may contribute to a life of sustained poverty (3, 4). A subgroup of immigrants of particular concern are Latino day laborers (LDLs), an informal and often unregulated workforce, vulnerable to discrimination, labor abuses, and hazardous working conditions (4) that contribute to the cycle of poverty that put them at increased risk for mental health issues and workplace injuries (3, 5).

Discrimination among Day Laborers and Other Latinos

Due to the stigma of their undocumented status, LDLs experience racism, classism, and discrimination (6). The literature on the prevalence of discrimination among LDLs is limited; however, information about discrimination exists for similar groups of Latinos. In a study on the prevalence and correlates of discrimination among US- and foreign-born Latinos, 30% of the sample reported discrimination (7). In studies published between 2011 and 2020, 50–82% of US- and foreign-born Latinos reported discrimination (8–14). In another study conducted with LDLs, up to 61% of participants reported experiencing discrimination in different settings, including at work, in a medical setting, by the police or courts, or in other situations, such as public transportation, on the streets, and at school (15).

LDLs' experiences of discrimination are often related to institutional practices that result in their being more likely to be under/unemployed or employed in dangerous jobs (4, 16). Their experiences also include being treated disrespectfully, insulted, and called names (17–20) as well as work-related exploitation (e.g., being underpaid or not paid for work completed) (4, 21). Thus, to earn money to support their families, LDLs often have to forgo basic safety and waive employers' responsibility to provide them with a safe work environment. These repeated experiences of discrimination and exploitation negatively influence their mental health (1, 22–25), which also can lead to physical health consequences (26, 27).

Discrimination and Health among LDLs

Results from several meta-analyses suggest that perceived discrimination is related to poorer mental (e.g., depression, anxiety, psychological distress) and physical (e.g., obesity, diabetes,

high blood pressure) health as well as health-related behaviors (e.g., use of preventive care, delay or failure to seek treatment, use of alcohol and other substances) among racial and ethnic minorities (26–28). Although limited, existing research provides support for the association between perceived discrimination and mental health among LDLs. Organista and Kubo (23) found that racism was identified as a stressor commonly encountered by LDLs (25.5%). Ethnographic work conducted by Negi (1) described the negative impact of interpersonal abuse on LDLs' mental health, a relationship later corroborated in a study that found a positive association between perceived discrimination, psychological distress and social isolation (22). Organista and Ngo (24) also found that LDLs' perceived discrimination was related to adverse mental health outcomes, including depression, anxiety, and desperation.

The influence of discrimination on mental health also has been documented in the context of workplace experiences. Studies indicate that workplace harassment negatively influences mental health, even more so than do other job stressors, and exposure to work-related stress increases the odds of adverse occupational health outcomes, such as injury and illness (25, 29). A related study conducted among Hispanic adults employed in the US (25) found that perceived discrimination mediated the association between Hispanic/Latino self-identification and work-related injury.

Perceived Reason for Discrimination and Health among LDLs

Although most studies that examine the association between perceived discrimination and health focus on race-based discrimination, the reason for perceived discrimination among LDLs, may be related to identities other than race. For example, Latino farmworkers attribute their experiences of discrimination to their being immigrants, their limited or lack of ability to speak English, and their ethnicity (30). Organista & Ngo (24) found that a majority of LDLs attributed their experiences of discrimination to being undocumented, further supporting the saliency of immigration status as a perceived reason for discrimination.

The mechanism that underlies the association between perceived reason for discrimination and workplace injury is not clear; it is believed, however, that it may operate in a similar way as the relation between perceived discrimination (i.e., mistreatment) and health. For example, stressors can increase participation in unhealthy behaviors (e.g., substance use) or decrease participation in healthy behaviors (e.g., safety practices) (27, 31).

In sum, there is evidence that discrimination is a common experience among LDLs that may influence their health. The extent to which discrimination is associated with occupational health outcomes such as work-related injury, however, is not well understood. Results from an exploratory study conducted by the current authors indicated that wage theft—an extreme form of workplace discrimination commonly experienced by LDLs—is associated with reports of severe work-related injury (16). To the authors' knowledge, however, no studies have examined how work-related injury among LDLs is associated with other experiences of discriminatory mistreatment or perceived reason for discrimination. Given that LDLs are at high risk for work-related injury and that the mistreatment and abuse they experience often occurs at work, this connection is important (4, 32, 33).

To further understand how discrimination influences workplace injury among LDLs, we used logistic regression analyses to examine whether experiences of discrimination (also referred to as perceived discrimination or discrimination experiences) were significantly associated with severe injury or illness (hereafter referred to as an injury) reported in the last year, after adjusting for sociodemographic characteristics. We also examined whether the perceived reason for discrimination was significantly associated with work-related injury. Understanding these relations may shed additional light on the stressors that lead to injury and provide the information needed to develop programs that increase LDLs safety at work.

Methods

A rapid needs assessment (RNA) survey was conducted in fall 2019 to assess workplace injury and its psychosocial, demographic, and occupational precursors to establish baseline measures in preparation for a community randomized trial. The RNA received approval from the Committee for the Protection of Human Subjects at The University of Texas Health Science Center at Houston (Study HSC-SPH-18-0337).

Study Location and Recruitment

This study was conducted in the Houston, Texas, metropolitan area. Potential participants were LDLs observed at locations where they gather for work (e.g., parking lots of home improvement stores, convenience stores, gas stations, apartment complexes, public parks, street intersections), referred to collectively as ‘corners.’ Corners were identified, observed, and recruited for this study by the study team prior to RNA implementation.

Corner addresses were randomized and corner visits were made in the order in which they appeared on a previously prepared randomization plan. Trained bilingual interviewers approached LDLs and explained the purpose of the study. To be included, LDLs had to be 18 years old or older, of Hispanic origin, and at the corner for the purposes of looking for work, and had to have been previously hired at least once as a day laborer. Eligible LDLs were asked to provide consent to participate in the study, were offered a \$25 gift card for their participation, and administered the RNA survey, which was delivered electronically using Qualtrics installed on tablet computers. From November to December 2019, we observed 389 LDLs on the corners. We approached 238 to participate in the study. Of the 238 LDLs approached, 149 from 15 corners completed the survey; thus, the participation rate was 62.6%.

Measures

Work-Related Injury—The outcome of interest was work-related injury. We asked participants whether, in the past 12 months, they had experienced a severe injury or illness related to their job as a day laborer. A severe injury or illness (injury) was defined as one that caused the participant to miss work, one for which they felt they should not have gone to work but did anyway, or one for which they had to receive medical attention from a doctor or a clinic. Responses were No or Yes.

Perceived Discrimination and Perceived Reason for Discrimination—Perceived discrimination and perceived reasons for discrimination were the exposures of interest. We measured discrimination experiences in the participant’s everyday life using five items adapted from Sternthal, Slopen & Williams (34). A sample item was, ‘In your day-to-day life, how often do these things happen to you?—You are treated with less courtesy or respect than other people.’ Responses included never (0), sometimes (1), many times (2), and all the time (3). The Cronbach’s alpha for the scale was .84. We computed a discrimination experience score by calculating participants’ average score across the five items (possible range: 0–5). We also computed the sum of the number of discrimination items each participant reported experiencing (possible range: 0–5).

To assess the perceived reason for discrimination, we asked participants who reported discrimination about possible reasons for their experiences. A sample item was, ‘In your opinion, what are the main reasons you have had these experiences?’ ‘Would you say that it is because of . . . ? —Your Country of Origin.’ Thirteen reasons were assessed and responses to each were No or Yes.

Covariates—We assessed sociodemographics known in the literature to be associated with experiences of discrimination and work-related injury among LDLs, including age, highest grade in school completed, time in the US, time looking for work on the corners, country of origin, and spoken language (Spanish, English, other).

Data Analysis

To understand how discrimination influences workplace injury among LDLs, we used logistic regressions to examine whether experiences of discrimination were significantly associated with severe injury reported in the last year, after adjusting for sociodemographics. Prior to conducting the main regression analyses, we examined the sociodemographics of the sample and descriptive statistics were used to determine the extent to which discrimination and injury were reported. We then conducted bivariate chi-square analyses to assess the association of each of the perceived reasons for discrimination with injury.

We used logistic regression analyses to test our two research aims. In the first regression model, injury was the dependent variable, discrimination experience score was the independent variable, and sociodemographics were included as covariates. The number of discrimination-items-experienced variable was excluded as a measure of perceived discrimination due to high collinearity with the discrimination experience score ($r = .86$, $p < .001$). In the second regression model, we added, as independent variables, the perceived reasons for discrimination found to be significantly associated with injury in the bivariate chi-square analyses described above. These reasons were set to No for those who did not report experiencing discrimination. We then reclassified responses as either discrimination not reported, discrimination reported but not due to perceived reason, or discrimination reported due to perceived reason.

For both logistic regression analyses, spoken language was recoded as Spanish (only Spanish, Spanish better than English, or Spanish and another primary language) or English as well or better than Spanish. Spanish was specified as the referent category. Country of

origin was recoded as US, Mexico, Central America (Honduras, Guatemala, or El Salvador), Cuba, or South America. US was specified as the referent category. A significance level of $p < .05$ (two-tailed) was used for all analyses. Analyses were conducted using SPSS, Version 26.

Results

Descriptive Statistics

Table 1 presents characteristics of the sample of LDLs. On average, they were in their mid-40s and had completed seven years of school. They had been in the US nearly 15 years and had been looking for employment on the corners for six years. The majority (51.4%) stated they spoke only Spanish, and one-third (31.8%) reported they spoke Spanish better than English. Mexico was the most frequently cited (35.6%) country of origin. The majority of participants (53.7%), however, were from a Central American country: Honduras, Guatemala, or El Salvador. Our sample also included two women.

As shown in Table 1, the majority of participants (70.5%) reported being ‘treated with less courtesy or respect than other people’ at least ‘sometimes.’ The majority (58.4%) also stated that ‘people acted as if they were not smart’ and ‘they received poorer service than others’ (56.4%). Discrimination experience scores across the five items assessed ranged from 0 to 3.0, (mean score=0.6, SD=0.5). A total of 28 (18.8%) laborers reported experiencing none of the five items, while 23 (15.4%) reported experiencing all items. The mean number of discrimination items experienced was 2.6 (SD = 1.8). In terms of the perceived reason for discrimination, the majority reported being discriminated against due to their immigration status (76.9%); being a day laborer (55.4%); their race (54.5%); or their country of origin (51.2%). Sixty-two (41.6%) LDLs reported an incident of severe injury while working as a day laborer in the last year (Table 1).

Associations between Perceived Discrimination, Perceived Reason for Discrimination, and Work-Related Injury

In the bivariate chi-square analyses in which we assessed initial associations between each perceived reason for discrimination and injury, immigration status was the only reason significantly associated with injury (Table 2). Among the 93 laborers who reported discrimination and cited immigration status as the reason, 49 (52.7%) reported a work-related injury within the last year compared to eight (28.6%) of the 28 laborers who reported discrimination but did not cite immigration status and five (17.9%) of an additional 28 laborers who reported no discrimination ($\chi^2=13.16$, $df=2$, $p=.001$).

The results of the first logistic regression analysis are shown in Table 3. Chi-square (χ^2) for the Hosmer and Lemeshow test was 5.61 ($df=8$, $p=.691$), indicating an adequate fit of the model to the observed data. Perceived discrimination, as measured by the discrimination experience score, was associated with increased odds of injury ($aOR=2.25$, 95% $CI=1.003-5.04$, $p=.049$). None of the sociodemographic variables was associated with injury. The R^2 for this model was .17.

The results for the second logistic regression analysis are shown in Table 4. Chi-square (χ^2) for the Hosmer and Lemeshow test was 2.49 ($df=8$, $p=.962$), indicating an adequate fit of the model to the data. The odds of reporting work-related injury were higher among those who cited immigration status as the perceived reason for discrimination compared to those who did not report experiencing discrimination ($aOR=5.04$, 95% $CI=1.31-19.38$, $p=.019$). The discrimination experience score was no longer significantly associated with injury, and injury was not associated with any of the sociodemographic variables. The R^2 for this model was .24.

Discussion

Although perceived discrimination is an important determinant of poor health outcomes among racial and ethnic minorities and described as a common stressor experienced by vulnerable subgroups such as Latino day laborers, few studies have examined the association between perceived discrimination and occupational health outcomes, such as work-related injury. Our descriptive findings suggest that perceived discrimination and work-related injury are prevalent among LDLs. Over four-fifths of our sample (81%) reported experiencing discrimination in at least one of the five situations we assessed. Notably, this is higher than current population-based data available on the prevalence of discrimination (50%) reported by Latinos in the US (predominantly US-born sample) (35).

As hypothesized, perceived discrimination was significantly associated with work-related injury when adjusting for LDLs' sociodemographic characteristics. This finding provides quantitative evidence to support qualitative findings reported by Fleming et al. (36) and Snipes et al. (30), who found that LDLs describe the abuses, exploitation, and experiences of discrimination that they endure as significant contributors to experiencing work-related injury.

Through bivariate analyses, we also found that immigration status was the only perceived reason for discrimination significantly associated with work-related injury among LDLs. This finding supports the saliency of discrimination based on immigration status (as compared to other identities) for understanding adverse work experiences among LDLs, which had been previously suggested in the literature (22, 30). This may be related to the fact that within our sample, those interviewed, on average, had been immigrants twice as long as they had been day laborers, which may speak to the saliency of their identity as an immigrant over their identity as a day laborer.

We further quantified the above bivariate association by conducting regression analyses and found that, when included in a final regression model with perceived discrimination and sociodemographic variables, perceived discrimination due to immigration status was significantly associated with work-related injury, while perceived discrimination in general was no longer significant. It is well documented that perceived discrimination is associated with adverse health outcomes (27, 28); however, our finding suggests that discrimination due to immigration status (as opposed to reporting broad experiences of discrimination) may be a more important determinant of LDLs' reports of injury. The mechanism through which these two are related is unclear; however, understanding that experiences of discrimination

trigger stress responses that can increase participation in unhealthy behaviors and decrease participation in healthy behaviors (27, 31) may help us understand how the two operate together.

There are a few limitations of this study. First, causal inferences cannot be made given this was a cross-sectional study. It was conducted among LDLs seeking work in Greater Houston, Texas, and, as such, the findings cannot be generalized to LDLs more broadly. In addition, the exposures and outcomes assessed were based on self-reported data and, thus, they may be vulnerable to recall bias and/or social desirability effects. As a result, perceived discrimination and severe work-related injury may have been underestimated in our study, affecting our understanding of the nature and effect of discrimination on injury. It should also be noted that while the aOR for the discrimination experience score in the first model was significant, the lower bound of the confidence interval for the aOR was near 1.00 (1.003) with an upper bound of 5.04. Likewise, the confidence interval for the aOR for discrimination experienced due to immigration status in the second model was wide, ranging from 1.31 to 19.38. Thus, the estimated magnitude of these effects are somewhat imprecise. Our results should be interpreted with these limitations in mind. Despite these limitations, this study makes a notable contribution to the literature as the first quantitative study, to our knowledge, to describe associations between perceived discrimination, perceived reason for discrimination, and work-related injury among LDLs. Our findings suggest that discrimination, in particular discrimination based on immigration status, may be related to more frequent work-related injury among LDLs.

Future studies could explore the importance of attributing discrimination to an immigrant identity and the reason that its saliency is a predictor of injury. Recognizing these as important determinants of work-related injury among LDLs is crucial for identifying subgroups who are at particularly high risk for injury as well as the structural/institutional/political policies, programs, and attitudes that perpetuate discrimination towards this population. The results of this work also may inform the development of public health and social interventions designed to reduce discrimination and injuries among this vulnerable population as well as additional research focused on identifying strengths among LDLs that could be protective. Future research should be conducted to confirm and expand on our findings, including clarifying the mechanisms that underlie associations between perceived discrimination, perceived reason for discrimination, and work-related injury among LDLs.

Acknowledgements

We want to thank the Latino day laborers and other members of our Community Advisory Board for their valuable advice throughout the study.

Funding

This work was supported by the National Institute on Minority Health and Health Disparities (1R01MD012928; PI Fernandez-Esquer). Lynn N. Ibekwe, PhD, MPH was supported through a predoctoral fellowship (T32CA057712: Cancer Prevention and Control Research Training and Career Development Program; MPI Mullen, Fernandez, Vernon) at The University of Texas Health Science Center at Houston (UTHealth) School of Public Health and partially supported by the Department of Health Promotion and Behavioral Sciences and the Center for Health Promotion and Prevention Research at UTHealth School of Public Health. The content of this paper is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the National Cancer Institute.

Data Availability Statement

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

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Table 1.

Sample Characteristics (N=149)

SOCIODEMOGRAPHICS				
	Range		Mean	SD
Age	20.9 – 80.8		45.0	12.1
Years in the US	0.2 – 70.0		14.5	12.1
Years on the Corner	0.1 – 27.0		6.0	6.2
Years of School Completed	0.0 – 18.0		7.2	4.1
	N		Percent	
Spoken Language (n=148)				
Only Spanish	76		51.4%	
Spanish Better than English	47		31.8%	
Both Languages Equally	20		13.5%	
English Better than Spanish	1		0.7%	
Only English	1		0.7%	
Spanish and another Primary Language	3		2.0%	
Country of Origin				
Mexico	53		35.6%	
Honduras	33		22.1%	
Guatemala	30		20.1%	
El Salvador	17		11.4%	
Cuba	9		6.0%	
United States	4		2.7%	
South America	3		2.0%	
EXPOSURES OF INTEREST				
Perceived Discrimination Items	Never (0)	Sometimes (1)	Many Times (2)	All the Time (3)
Treated with less courtesy or respect than other people.	44 (29.5%)	88 (59.1%)	15 (10.1%)	2 (1.3%)
Received poorer service than other people at restaurants, clinics, or stores.	65 (43.6%)	74 (49.7%)	8 (5.4%)	2 (1.3%)
People acted as if you were not smart.	62 (41.6%)	74 (49.7%)	11 (7.4%)	2 (1.3%)
People acted as if they were afraid of you.	83 (55.7%)	58 (38.9%)	7 (4.7%)	1 (0.7%)
Threatened or harassed.	99 (66.4%)	38 (25.5%)	10 (6.7%)	2 (1.3%)
Number of Discrimination Items Experienced	N		Percent	
0	28		18.8%	
1	17		11.4%	
2	21		14.1%	
3	22		14.8%	
4	38		25.5%	
5	23		15.4%	
	Range		Mean	SD

SOCIODEMOGRAPHICS			
	Range	Mean	SD
Discrimination Experience Score	0 – 3	0.6	0.5
Number of Discrimination Items Experienced	0 – 5	2.6	1.78
Perceived Reason For Discrimination ^a	N	Percent	
Your immigration status	93	76.9%	
Being a day laborer	67	55.4%	
Your race	66	54.5%	
Your country of origin	62	51.2%	
Being poor	54	44.6%	
Your age	45	37.2%	
Your physical appearance	41	33.9%	
Your education	34	28.1%	
Your religion	29	24.0%	
Your height	27	22.3%	
Your weight	25	20.7%	
Because you're a man ^b	20	16.8%	
Your sexual orientation ^c	8	6.7%	
OUTCOME			
Work-Related Injury in the Last Year	N	Percent	
No	87	58.4%	
Yes	62	41.6%	

^a Assessed only among those who reported experiencing at least one discrimination item (n=121)

^b Assessed only among men (n=119)

^c Excluded one response of Do Not Know

Table 2.

Chi-Square Associations of Perceived Reasons for Discrimination with Work-Related Injury (N=121)

Perceived Reasons	Injury Status		p
	No	Yes	
Your immigration status			.025
No	20 (71.4%)	8 (28.6%)	
Yes	44 (47.3%)	49 (52.7%)	
Being a day laborer			.348
No	26 (48.1%)	28 (51.9%)	
Yes	38 (56.7%)	29 (43.3%)	
Your race			.690
No	28 (50.9%)	27 (49.1%)	
Yes	36 (54.5%)	30 (45.5%)	
Your country of origin			.940
No	31 (52.5%)	28 (47.5%)	
Yes	33 (53.2%)	29 (46.8%)	
Being poor			.372
No	33 (49.3%)	34 (50.7%)	
Yes	31 (57.4%)	23 (42.6%)	
Your age			.652
No	39 (51.3%)	37 (48.7%)	
Yes	25 (55.6%)	20 (44.4%)	
Your physical appearance			.202
No	39 (48.8%)	41 (51.2%)	
Yes	25 (61.0%)	16 (39.0%)	
Your education			.680
No	45 (51.7%)	42 (48.3%)	
Yes	19 (55.9%)	15 (44.1%)	
Your religion			.568
No	50 (54.3%)	42 (45.7%)	
Yes	14 (48.3%)	15 (51.7%)	
Your height			.902
No	50 (53.2%)	44 (46.8%)	
Yes	14 (51.9%)	13 (48.1%)	
Your weight			.212
No	48 (50.0%)	48 (50.0%)	

Perceived Reasons	Injury Status		<i>p</i>
	No	Yes	
Yes	16 (64.0%)	9 (36.0%)	
Because you're a man			.776
No	51 (51.5%)	48 (48.5%)	
Yes	11 (55.0%)	9 (45.0%)	
Your sexual orientation			.353
No	61 (54.5%)	51 (45.5%)	
Yes	3 (37.5%)	5 (62.5%)	
Perceived Reason for Discrimination Classification			
No discrimination reported	23 (82.1%)	5 (17.9%)	.001
Discrimination reported but not due to immigration status	20 (71.4%)	8 (28.6%)	
Discrimination reported due to immigration status	44 (47.3%)	49 (52.7%)	

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Table 3.

Adjusted Odds Ratios for Association between Discrimination Experience Score and Work-Related Injury (N=148)

	aOR	95% CI for aOR	p
Discrimination Experience Score	2.25	1.003 – 5.04	.049
Age	1.01	.97 – 1.06	.521
Years in US	1.03	.99 – 1.08	.154
Years on the Corners	1.02	.95 – 1.10	.571
Years of School Completed	.97	.88 – 1.07	.970
Spoken Language			
Spanish (referent)			
English as well or better	.98	.32 – 3.06	.974
Country of Origin			
United States (referent)			
Mexico	.641	.04 – 10.73	.757
Central America	1.10	.07 – 18.20	.949
Cuba	.67	.02 – 20.51	.817
South America	1.75	.04 – 87.15	.780
Hosmer Lemeshow $\chi^2 = 5.61$; df = 8; p = .691 R ² = .17			

aOR = adjusted odds ratio; CI = confidence interval

Table 4.

Adjusted Odds Ratios for Association between Perceived Reasons for Discrimination and Work-Related Injury (N=148)

	aOR	95% CI for aOR	p
Perceived Reason for Discrimination Classification			
No discrimination reported (referent)			
Discrimination reported but not due to immigration status	1.42	.33 – 6.22	.640
Discrimination reported due to immigration status	5.04	1.31 – 19.38	.019
Discrimination Experience Score	1.07	.41 – 2.80	.890
Age	1.01	.97 – 1.05	.692
Years in US	1.04	1.00 – 1.09	.080
Years on the Corners	1.03	.95 – 1.11	.508
Years of School Completed	.96	.87 – 1.06	.422
Spoken Language			
Spanish (referent)			
English as well or better	1.03	.32 – 3.30	.965
Country of Origin			
United States (referent)			
Mexico	.40	.02 – 8.29	.550
Central America	.58	.03 – 12.11	.727
Cuba	.45	.01 – 16.52	.663
South America	1.50	.03 – 91.62	.847
Hosmer Lemeshow $\chi^2 = 2.49$; df = 8; p = .962 R ² = .24			

aOR = adjusted odds ratio; CI = confidence interval