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Factors Contributing to Trust of Occupational Healthcare Services in Meatpacking Plants
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Abstract

Meatpacking refers to the slaughtering of livestock and processing and packaging it into meat and other byproducts. Meatpacking is a large industry employing thousands of workers from various racial and socioeconomic backgrounds in Nebraska. These workers have experienced disparities in accessing occupational health services such as language barriers, fear of job loss, or deportation due to immigration status if these services were used. The purpose of this study was to investigate how trust in occupational health services varied among employees at a meatpacking plant in Nebraska by demographic characteristics, particularly by ethnicity, gender, and English language proficiency.

Chapter 1

Introduction

I have been interested in learning about the levels of trust in the occupational health office in meatpacking plants and the impact that COVID-19 had on this industry because my job at the Central District Health Department entails contact tracing for those that test positive for COVID-19. I heard firsthand stories about what workers were experiencing daily - some even saying they were treated worse than the cows. This immediately sparked my interest in this field of study to see why these workers felt this way and if levels of trust varied among workers.

Attention to meatpacking plants has grown exponentially due to the COVID-19 pandemic. The Defense Production Act allowed meatpacking plants in Nebraska, particularly Grand Island, Hastings, Lexington, Dakota City, Madison, and Crete, to continue production. (Knapp, 2020). According to the Food & Environment Reporting Network as of September 8, 2021, there were 7,382 COVID-19 cases in Nebraska meatpacking plants (Douglas, 2020). Interventions were put in place early on in April 2020 to protect employees such as worker symptom screening upon entry, required universal face covering, added hand hygiene stations, installed physical barriers between workers, and staggered shifts (Waltenburg et al., 2020). A survey conducted of 443 meatpacking workers in Nebraska found that 72.1% felt they were at “high risk” for contracting COVID-19 at work (Ramos et al., 2020). Workers were fearful. Workers worried about their health and whether the facilities had workers’ best interests in mind and were concerned about exposing their family members, many of which were children or other family members with underlying health conditions, to COVID-19.

During the height of the pandemic, disease investigators and contact tracers at local health departments learned of several obstacles that prevented workers from staying safe.

Workers disclosed that it was common for workers to continue working while symptomatic or even after a positive test. There were also issues with communication and education provided to the workers. A local meatpacking plant in Grand Island, Nebraska, tested their workers, but the problem was after they tested positive. Patients disclosed to contact tracers who were responsible for contacting COVID-19 positive individuals to provide education based on CDC recommendations about how long they should isolate for and identify who they may have been in contact with so those individuals were aware of exposure and quarantine recommendations, that they were never told how long they should isolate for and how COVID-19 would affect their family. Workers personally shared that management would take their identification badges and depending on who they talked to were maybe told when they could return to work. A worker shared how they had disclosed to their supervisor they were feeling ill and needed to go to the occupational health office but instead they were told they had to get back to work. After trying to finish their day, they could no longer take it as they were experiencing COVID-19 symptoms and had to walk out. They took matters into their own hands and got tested at a community clinic instead of the in-house testing center. During a tearful contact tracing conversation, the COVID-19 positive patient shared, “Ellos tratan mejor a las vacas” (They treat the cows better than us). In a study conducted by Ramos et al. (2021), meatpacking workers discussed their concerns with COVID-19. Employees shared, “They don’t care about their workers; they only care about the money. Each person’s life for them is just another cow” (Ramos et al., 2021, p. 18). Employees shared they would have rather had temporary plant closures so everyone could get tested to help stop the spread of infection (Ramos et al., 2021).

Chapter 2

Background and Literature Review

Meatpacking is considered a 3-D industry: dirty, dangerous, and demanding (Ramos, McGinley, & Carlo, 2021). Working in meatpacking comes with many challenges and dangers aside from COVID-19 including musculoskeletal injuries, noise, and hazardous chemicals exposures. In 2018, nationally 498,848 people worked in animal slaughtering and processing, with 268,115 individuals working specifically in beef processing facilities (Stuesse & Dollar, 2020). In Nebraska alone, there were 26,607 meatpacking workers (Stuesse & Dollar, 2020). According to a study by Fremstad et al., (2020) and their analysis of the American Community Survey, meatpacking workers were 44.4% Hispanic, 25.2% Black, 19.1% White, 10.0% Asian Americans and Pacific Islander, and 1.2% other. Approximately a quarter of frontline meatpacking workers lived in limited English-speaking households, 12.4% lived below the poverty line, 15.5% had no health insurance, 42.0% were female, and 44.1% had less than a high school education (Fremstad et al, 2020).

There are many occupational hazards in meatpacking plants such as noise and exposures to highly hazardous chemicals such as anhydrous ammonia used for refrigeration systems (Occupational Safety and Health Administration [OSHA], 2021). Injuries are common. In fact, according to the U.S. Bureau of Labor Statistics in 2019, there was a total of 5.1 recordable injury cases per 100 full time employees in the animal slaughtering industry (North American Industry Classification System [NAICS], 311611). In 2019 for general industry, total recordable injury cases were lower with a total of 3.0 recordable injury cases per 100 full time employees (U.S Bureau of Labor Statistics, 2019). Workers often experience musculoskeletal disorders due to repetitive motion over 8+ hour shifts (OSHA), 2021). In a study by Ramos et al. (2021),

common musculoskeletal pain sites were shoulders, elbows, wrists, and hands. Research participants shared that these injuries were inevitable due to the plants' fast pace. They also shared how they would try to alleviate their pain by taking pain killers and using ointments. Unfortunately, the constant repetitive movements make many of these workers susceptible to these types of injuries. Latino workers are also at a disadvantage due to their smaller stature and continually having to stretch to reach their machine to do their daily tasks (Davila, 2014).

The main reason for the availability of occupational health services in this industry is to provide care for employees if they were to get injured on the job. The medical services and first aid that are to be provided by an employer according to OSHA section 1910.151(a) are as follows: the employer shall ensure the ready availability of medical personnel and advice and consultation on matters of plant health. Those that provide occupational health services to meatpacking workers must go through training to make certain they understand "the definition of first aid, legal issues of applying first aid, basic anatomy, and patient assessment and first aid for the following: lacerations/abrasions, shock, treatment of strains, sprains, and fractures, etc." (OSHA, 2020, para. 3).

Trust

The trust between a patient and healthcare provider is critical and can determine whether a patient seeks care. Past experiences can influence whether a patient seeks medical attention and feels comfortable doing so. Research has shown that prior experiences such as racial discrimination in the healthcare system impact the relationship between patients and their providers. A study by Armstrong et al. (2014) found that trust of healthcare providers varied by race and ethnicity. For example, "African Americans have higher levels of medical mistrust and lower levels of trust in their physicians" (Armstrong et al, 2014, p. 2). Social determinants of

health such as education, immigration status, and socioeconomic status may also affect trust between the patient and a healthcare provider. In many instances, patients delay or forgo medical attention because they cannot afford it. In a study by Stephanikova & Oates (2017), African American patients who had lower socioeconomic status and sought out medical attention reported “increased perceptions of racial discrimination.” Hausmann and colleagues (2012) found that “African Americans perceived discrimination in healthcare over three times as often as whites” (p. 5). Experiences of discrimination only further discourage patients from seeking out medical attention and increase the level of mistrust.

In general, there has been disagreement on defining trust, and even in the healthcare system, trust has been defined in many ways (Pearson & Raeke, 2000). One definition of trust is a “set of expectations that patients have from the healthcare system to help them heal; those expectations include appropriate diagnosis, correct treatment, non-exploitation, interest in the welfare of the patient and transparent disclosure of information” (Tn & Kutty, 2015, p. 125). Trust has also been defined as “set of beliefs or expectations that a physician will behave in a certain way (Pearson & Raeke, 2000, p. 509). There are scales available to measure trust in the healthcare system, such as Trust in Physician scale that assesses patient trust in physicians (Pearson & Raeke, 2000). There is also the Primary Care Assessment Survey which assesses patient-doctor relationships and measures trust over the entire term of the relationship (Pearson & Raeke, 2000).

Barriers to Health Care

Barriers affecting the trust in the healthcare system may also apply to other minority groups such as Hispanics, of which approximately 18% are undocumented in the United States (Cabral & Cuevas, 2020). Undocumented status has been linked to health disadvantages and

barriers to care among Hispanics. For example, documentation status has led to healthcare underutilization. In a study of 143 Hispanic participants, 39% reported not using social and governmental agencies due to the fear of deportation (Cabral & Cuevas, 2020). Hispanics also experience effects of implicit bias. Dr. Irene Blair conducted with 138 primary care physicians and hypertension patients they found that black and Latino patients received equal treatments but lower hypertension control. This study was able to confirm implicit bias operates against Blacks and Latinos (Mathew, 2015). According to the Perception Institute (n.d.), implicit bias refers to the attitudes or stereotypes towards people without conscious knowledge. Unfortunately, there are many stereotypes that undocumented Hispanics are criminals and are blamed for murder, kidnapping, and rape (Flores & Schachter, 2018). If healthcare providers are exposed to these negative portrayals of Hispanics in the media, it can affect the quality of healthcare that the Hispanic population may receive (Cabral & Cuevas, 2020). Overall minority patients' experiences with healthcare vary due to several factors, and these experiences can negatively impact whether individuals use healthcare services including occupational health services.

Fear of Job Loss

Employees may not report injuries or may delay getting their injuries examined by their in-house occupational health services because of fear of job loss. Workers from plants in Alabama, North Carolina, and Nebraska reported employer practices that discouraged reporting injuries and illnesses (Human Rights Watch, 2020). Many employees shared they did not report their injuries or illnesses because they feared retaliation such as the “companies’ disciplinary point system where points were awarded for worker behavior concerns which eventually could lead to termination” (Ramos et al., 2021, p.4). Workers in a study by Ramos et al. (2021) described getting points for missing work due to illness and inability to leave the line for self-

care activities due to production goals. Workers even shared they were not able to leave the line to use the restroom. Workers themselves may feel guilty when using these services because they miss work and their other coworkers on the line may have to compensate for the missed time. When the production line is already fast paced and demanding sometimes leaving coworkers on the line to seek medical attention is not an option despite the pain that a worker may be experiencing.

Additionally, meatpacking workers fear losing their job due to financial concerns. As of 2020, 45.1% of meatpacking workers lived in low-income families and 12.4% had incomes below the poverty line (Fremstad, Rho, & Brown, 2020). Some workers may feel comfortable using the occupational health office but may fear what would happen if they do. They may fear termination because of an injury or getting assigned points due to missing work for an injury, all of which they cannot afford.

There is also fear among some employees regarding their immigration legal status and what could happen if they were to report and seek medical attention. The undocumented immigrant population in the United States has declined since 2007, and in 2017 the total number of unauthorized immigrants was 10.5 million (Lopez, Passesl, & Cohn, 2021). Immigrant workers reported they thought they did not have the right to medical care when they were injured at work because some of them worked with a different name and false social security numbers (Flynn, Eggerth, & Jacobson, 2015). In other words, if they sought medical attention and their employer discovered they were working under a false name they risk deportation. Many of these workers are the financial providers for their families and would much rather work with an injury than be separated from their families.

Not only is there fear about what will happen if workers seek medical attention, but workers feel anxious and vulnerable when they use the occupational health services provided by their employers. Workers may not want to disclose how they got hurt because they may have been pushed to do things they should have not done in order to keep up with the demand. They also do not want to be labelled as lazy (Ramos et al., 2021). When a meatpacking worker goes to the occupational health office, they must take time off the line and workers fear their supervisors may think they are lazy and are looking for an excuse to avoid work. At times they may have to endure pain to keep up with the fast-paced production lines. Over the years production in meatpacking plants has increased, making it more demanding and leaving workers more vulnerable to injuries. To increase profits, meat processing plants companies “have sought to maximize the volume of production and minimize the cost of labor by pushing production speeds faster” (Human Rights Watch, 2019, p. 3). Employees have delayed using occupational health services because of the high work demands. They saw these services as time consuming and thought nothing could be done for them (Ramos et al., 2021). Employees may feel as if their health and safety is not prioritized due to meatpacking plants’ concern for increasing production and profit (Ramos et al., 2021). Workers may also question if their medical information is in fact private or if it will be disclosed to their superiors, which can cause a sense of vulnerability and reduce trust, which may further discourage use of occupational health services.

A common theme found in a study by Ramos et al. (2021) was meatpacking workers saw few benefits in accessing occupational health services. The disciplinary point system was a barrier. Workers said their supervisors told them they could take time off work if they were sick, but a point was given if they did so. Workers in this study shared more costs to using occupational health services, in the end, said nothing could be done for them if had they used

these services anyway. Sometimes workers had to keep working even after disclosing to the health office staff that they had severe pain and were put on “light duty” which only meant they had to continue working with an injury. The level of trust in occupational health services may be compromised if workers experience or hear their coworkers having these negative experiences. Workers may have thought when they used those services it was going to hurt their work experience more than help it.

Language

Language can also impact use of health services. When patients do not speak the native language, they may be fearful because they are not able to understand what is going on (Floyd & Sakellariou, 2017). Language barriers can be discouraging, particularly if patients cannot confidently explain what may hurt or what is wrong. Workers may also feel ashamed because they are not able to speak English while their coworkers can. In a study by Floyd & Sakellariou (2017), patients expressed how they felt shame because of their lack of education and language skills. In a study by Ramos et al. (2021), meatpacking workers found it challenging to complete tasks such as a hearing test due to language barriers and sometimes relied on coworkers to interpret for them. This can be a problem because coworkers are usually not professional medical interpreters and may not have the qualifications to interpret for the workers that use the occupational health services. Hacker et al (2015) found patients that did not speak the dominant language feared being misunderstood when accessing health services. Being misunderstood in healthcare settings is a barrier because someone’s illness or injury may be understood as being mild when it is severe. Meatpacking workers face risks daily, and not being able to express how they truly feel or being misunderstood is a factor to consider when examining levels of trust. There should never be assumptions in the healthcare system that everyone can speak the native

language as these assumptions may alienate patients, highlighting the need for professional interpreters and why they should be provided.

Language barriers can also affect one's health literacy. Understanding health terms is daunting especially since a significant number of workers have low levels of formal education. Not only are meatpacking workers at a disadvantage for understanding due to language they may have a challenge understanding overall what the health professional is recommending because of low health literacy. People with high health literacy level can seek out, interpret, and understand health messages, treatment options, and health instructions (Lambert et al, 2014). Lower levels of health literacy may further negatively affect trust of the occupational health services. If workers do not understand what they need to do to manage their injury they may see these services as a waste of time and feel as if there is no reason for them to visit the office. Current research has found meatpacking workers feel as if there are few benefits in accessing these services (Ramos et al., 2021).

Gender

According to the Centers for Disease Control and Prevention (CDC), women (32.3%) were more likely than men (26.0%) to have visited one or more urgent care centers or health clinics in the past 12 months (CDC, 2021). Studies have found women are more likely to seek primary care than men (Perelman, Fernandes, & Mateus, 2012). "Women are less likely than men to receive the most effective, advanced treatments and diagnostic procedures available for a variety of health conditions" (Homan, 2019, p. 487). Studies have shown how gender can also be a barrier when accessing healthcare. Men may be more hesitant to access healthcare than women in part due to masculinity norms or not seeing their illnesses as severe.

Age

A person's age may also impact their experiences when accessing healthcare. Older people may face barriers such as age discrimination and not age-appropriate care. In a 2010 multi-country survey, it was found that when older people accessed healthcare they felt as if the health professionals had little knowledge regarding their condition and did not provide services that were age-appropriate (United Nations General Assembly, 2018). Older individuals have also reported age discrimination which has discouraged them from seeking the medical attention they need (UNDESA, 2018). In meatpacking plants, there are employees with a wide range of ages, including older individuals, and age may influence levels of trust.

The barriers meatpacking workers face must be acknowledged and may speak to why there may be a distrust of the occupational health office. Workers at meatpacking plants are a diverse population in terms of race/ethnicity, age, gender, and English proficiency, and with such a diverse workforce, it is important to understand how trust in the occupational health office may vary. Several factors may affect trust including discrimination and previous negative experience with the healthcare system, limited knowledge of labor rights, fear associated with immigration or retaliation, limited English proficiency, gender, and age.

Chapter 3

Data and Methods

The purpose of this study is to analyze meatpacking workers' level of trust in the occupational health services at their workplace by Hispanic/Latino ethnicity, gender, and English language proficiency. Among meatpacking workers, I hypothesized the following:

H1: There are lower levels of trust in the occupational health office among Hispanics compared to non-Hispanics.

H2: There are lower levels of trust in the occupational health office among males compared to females.

H3: There are lower levels of trust in the occupational health office among those with limited English proficiency compared to those that are English proficient.

A quantitative survey of meatpacking plant workers in Grand Island, Nebraska was conducted with 120 study participants. Inclusion criteria were that participants had to be at least 19 years old and currently employed at a slaughter or meat processing (meatpacking) facility. Surveys were administered from June-August 2021 by the Center for Reducing Health Disparities team through verbal interviews with workers conducted both in-person and over the phone. Study participants were recruited through community events (e.g., COVID-19 vaccine clinic at St. Mary's Catholic Church), worker union leadership, and social networks of research team members and collaborators. Workers had the option to complete the 30-minute survey in English or Spanish. Workers who completed the survey were given a \$10 Visa gift card. This funded project was led by Dr. Athena Ramos and approved the UNMC Institutional Review Board, IRB #921-20-EX.

Measures

Trust in Occupational Health Office

The survey included six questions related to trust in the occupational health office (i.e., nurses' office) at the plant. For this study, we defined trust as honesty, confidentiality, dependability/reliability, communication, competency, and transparency. Communication and transparency in this study included if the people in the plant's health office can communicate effectively with workers, acted in a confidential manner keeping personally sensitive information private, dependability/reliability, and if it was easy to get services at the plant's health office. As for competency, this included if the plant's health office provided quality care, and honesty included if the plant put the interests of the workers first. These six trust questions were drawn from previously validated instruments including the Trust in Physician Scale, Patient Trust Scale, and Multidimensional Trust in Health Care Systems Scale (Pearson & Raeke, 2000; Tn & Kutty, 2015). Questions included:

1. It is easy to get services at the plant's health office.
2. The plant's health office provides quality care.
3. The plant's health office keeps personally sensitive health information private.
4. The people who work in the plant's health office communicate effectively with workers.
5. The plant's health office puts the best interests of the workers first.
6. In general, I trust the plant's health office.

These questions had response options as strongly disagree (0), disagree (1), neutral (2), agree (3), and strongly agree (4). Scores ranged from 2 to 24 with an average score of 13.65 (SD = 4.75). Higher scores for these questions reflected higher levels of trust. The internal consistency

for the six health office questions was assessed using the Cronbach's alpha. In this sample, there was good internal consistency, $\alpha = .856$.

Demographics Characteristics

Demographic information such as age, gender, race/ethnicity, language, and education was also collected. Gender was coded male (0) and female (1). Hispanic was coded (0) and non-Hispanic (1). Age was recoded into four categories: age 25 and under (0), 26-40 years old (1), 41-55 years old (2), and over 56 years of age (3). English proficiency was originally coded as well, very well, not at all, and a little. This was then recoded into two different categories representing English proficient (0) and limited English proficient (1). Education was a continuous variable, and participants were asked to answer years of formal education (in years) they completed.

Data Analysis

The data was analyzed using IBM SPSS version 27 software. Descriptive analyses were conducted to find the mean, standard deviation, and frequency for each of the six trust items and all demographic variables of interest. Then, a new continuous variable for a total trust in the occupational health office was created by summing the six health office trust items. Mann-Whitney tests were conducted to assess differences in levels of trust by ethnicity, gender, and English proficiency. The Mann-Whitney test was chosen because there a non-normal and unbalanced distribution was observed within the data.

Chapter 4

Results

Participants included 120 meatpacking workers from Grand Island, NE. Of the total, 108 (90%) of the participants were Hispanic and 12 (10%) were non-Hispanic. Participants were from the United States, Guatemala, El Salvador, as well as other countries. Most participants had limited English proficiency meaning that they spoke English not well or not at all. Demographic characteristics can be found in Table 1.

Table 1*Demographics of meatpacking workers*

| Demographics | N (%) | Mean (SD) |
|---|------------|------------|
| Gender (N=119) | | |
| Male | 47 (39.5) | |
| Female | 72 (60.5) | |
| Ethnicity | | |
| Hispanic | 108 (90.0) | |
| Non-Hispanic | 12 (10.0) | |
| Language (N=115) | | |
| Spanish | 110 (95.7) | |
| English | 2 (1.7) | |
| Other | 3 (2.4) | |
| Age (N=117) | | 46 (13.4) |
| < 25 | 9 (7.7) | |
| 26-40 | 34 (29.1) | |
| 41-55 | 41 (35.0) | |
| >56 | 33 (28.2) | |
| Country of Origin (N=119) | | |
| USA | 13 (10.9) | |
| Mexico | 33 (27.7) | |
| Guatemala | 26 (21.8) | |
| El Salvador | 19 (16.1) | |
| Other | 28 (23.5) | |
| Length of time in the United States (in years) | | 21 (12.2) |
| Years of formal education | | 9.3 (4.6) |
| Tenure working at the facility (in years) | | 11.6 (9.4) |
| English proficiency (N=119) | | |
| Limited English Proficient | 73 (61.3) | |
| English Proficient | 46 (38.7) | |

Trust by Ethnicity

Non-Hispanics had a lower level of trust than Hispanics on the trust scale (possible range from 0 to 24). The mean score for Hispanics was 14.0 (SD = 4.5) and for non-Hispanics the mean score was 10.4 (SD = 5.9). The Mann-Whitney test indicated that the level of trust was significantly greater for Hispanics (mean rank = 61.5) than non-Hispanics (mean rank = 39.82), $U = 372$, $p = .044$.

There were significant differences in scores on two individual items between Hispanics and non-Hispanics: It is easy to get service at the plant's health office, $p = .011$ and the plant's health office keeps personally sensitive health information private $p = .011$. Refer to Table 2.

Trust by Gender

Although females had a higher average level of trust compared to males, there was no significant difference by gender. The average trust in the occupational health office score for males was 12.8 (SD = 4.5) whereas females had an average trust score of 14.2 (SD = 4.9).

The Mann-Whitney test indicated that there was a significant difference between males and females on one item referring to effective communication, with females reporting better communication than males, mean rank = 64.87 compared to mean rank = 52.84, $U = 1342$ $p = .041$. See Table 3.

Trust by English Proficiency

Although study participants that had limited English proficiency had a higher trust score compared to English proficient participants, there was no significant difference by language proficiency. Limited English proficient participants had a mean score of 14.1 (SD = 4.7) on the trust scale compared to English proficient participants who had a mean score of 13.0 (SD = 4.8).

The Mann-Whitney test indicated that there was a significant difference between English proficient participants and limited English proficient participants on one item referring to whether the plant's health office keeps personally sensitive health information private, with limited English proficient participants reporting higher trust than English proficient participants, mean rank = 63.82 compared to mean rank 52.49, $U = 1327$ $p = .048$. See Table 4.

Table 2*Trust in health office by Hispanic ethnicity*

| Variable | Ethnicity | N | Mean Rank | U | Z | p |
|--|--------------|-----|-----------|--------|--------|-------|
| 1. It is easy to get services at the plant's health office** | Hispanic | 108 | 62.43 | 331.5 | -2.530 | 0.011 |
| | Non-Hispanic | 11 | 36.14 | | | |
| 2. The plant's health office provides quality care | Hispanic | 108 | 61.2 | 464 | -1.251 | 0.211 |
| | Non-Hispanic | 11 | 48.18 | | | |
| 3. The plant's health office keeps personally sensitive health information private** | Hispanic | 107 | 61.78 | 344.50 | -2.550 | 0.011 |
| | Non-Hispanic | 11 | 37.32 | | | |
| 4. The people who work in the plant's health office communicate effectively with workers | Hispanic | 108 | 61.83 | 396.5 | -1.948 | 0.051 |
| | Non-Hispanic | 11 | 42.05 | | | |
| 5. The plant's health office put the best interests of the workers first | Hispanic | 108 | 61.37 | 446 | -1.424 | 0.155 |
| | Non-Hispanic | 11 | 46.55 | | | |
| 6. In general, I trust the plant's health office | Hispanic | 108 | 60.77 | 511 | -0.792 | 0.429 |
| | Non-Hispanic | 11 | 52.45 | | | |
| Total trust in the plant's health office* | Hispanic | 107 | 61.52 | 372 | -2.011 | 0.044 |
| | Non-Hispanic | 11 | 39.82 | | | |

* $p < .05$; ** $p < .01$

Table 3*Trust in the health office by gender*

| Variable | Gender | N | Mean Rank | U | Z | p |
|---|--------|----|-----------|----------|--------|-------|
| 1. It is easy to get services at the plant's health office | Male | 47 | 57.88 | 1592.500 | -0.568 | 0.570 |
| | Female | 72 | 61.38 | | | |
| 2. The plant's health office provides quality care | Male | 42 | 56.74 | 1539.000 | -0.873 | 0.383 |
| | Female | 72 | 62.13 | | | |
| 3. The plant's health office keeps personally sensitive health information private | Male | 46 | 52.76 | 1346.000 | -1.931 | 0.053 |
| | Female | 72 | 63.81 | | | |
| 4. The people who work in the plant's health office communicate effectively with workers* | Male | 47 | 52.54 | 1341.500 | -2.048 | 0.041 |
| | Female | 72 | 64.87 | | | |
| 5. The plant's health office put the best interests of the workers first | Male | 47 | 56.7 | 1537.000 | -0.883 | 0.377 |
| | Female | 72 | 62.15 | | | |
| 6. In general, I trust the plant's health office | Male | 47 | 56.02 | 1505.000 | -1.057 | 0.291 |
| | Female | 72 | 62.60 | | | |
| Total trust in the plant's health office | Male | 46 | 53.98 | 1402.000 | -1.406 | 0.160 |
| | Female | 72 | 63.03 | | | |

* $p < .05$

Table 4
Trust in the health office by English proficiency

| Variable | English proficiency | N | Mean Rank | U | Z | <i>p</i> |
|--|---------------------|----|-----------|----------|--------|----------|
| 1. It is easy to get services at the plant's health office | Proficient | 46 | 55.91 | 1491.000 | -1.078 | 0.281 |
| | Limited | 73 | 62.58 | | | |
| 2. The plant's health office provides quality care | Proficient | 46 | 59.57 | 1659.000 | -0.115 | 0.909 |
| | Limited | 73 | 60.27 | | | |
| 3. The plant's health office keeps personally sensitive health information private* | Proficient | 45 | 52.49 | 1327.000 | -1.974 | 0.048 |
| | Limited | 73 | 63.82 | | | |
| 4. The people who work in the plant's health in the plant's health office communicate effectively with workers | Proficient | 46 | 56.01 | 1495.500 | -1.076 | 0.282 |
| | Limited | 73 | 62.51 | | | |
| 5. The plant's health office put the best interests of the workers first | Proficient | 46 | 55.17 | 1457.000 | -1.27 | 0.204 |
| | Limited | 73 | 63.04 | | | |
| 6. In general, I trust the plant's health office | Proficient | 46 | 57.48 | 1563.000 | -0.658 | 0.511 |
| | Limited | 73 | 61.59 | | | |
| Total trust in the plant's health office | Proficient | 45 | 55.79 | 1475.500 | -0.928 | 0.353 |
| | Limited | 73 | 61.79 | | | |

* $p < .05$

Chapter 5

Discussion

This study is unique because it assesses trust in occupational health services in the meatpacking industry; an industry where many workers are vulnerable. We found that non-Hispanics had lower levels of trust in the occupational health office than Hispanics. Our findings differ from a recent qualitative study that found that Hispanic meatpacking workers had little confidence and trust in the occupational health office (Ramos et al., 2021). These differences may be due to differences in methodology and conceptualization of trust.

It is important to examine the individuals' beliefs and experiences to understand what may encourage or discourage them from using services at the plant's health office. The Health Belief Model (HBM) is one of the most applied theories of health behavior (Glanz & Bishop, 2010). The primary concepts in the HBM include risk susceptibility, risk severity, benefits to action, barriers to action, self-efficacy, and cues to action (Jones et al, 2014). This model can help to understand why someone may or may not use health preventative services. HBM looks at how an individual's beliefs affect the actions they take regarding their health (Rawlett, 2011). If a person believes the occupational health office will not keep their personally sensitive information private, will not communicate effectively, will not provide quality care, is not easy to get services at the health office, the plant does not put the interests of the workers first and in general does not trust the plants health office, then they may not use the health office. Previous literature discusses how workers would rather work with an injury then use health services at meatpacking plants due to barriers they experience such as language, privacy concerns, and fear of diagnosis being told they may have to miss work which means no flow of income (Ramos et al., 2021). Such factors influence an individual's beliefs and perceptions to use health services.

If meatpacking plants want to have a high production rate, then their workers need to be healthy so they are productive. Workers cannot keep up with production demands if they continually work injured or ill. Healthier workers could lead to positive results such as higher productivity, an increase in job satisfaction, and most importantly in increase the trust of occupational health services. Trust in health services has been researched previously, and findings such as providing culturally appropriate educational materials, health screenings (e.g., blood pressure and cholesterol), and incorporating health-promoting activities to help manage work-related injuries could be applied in meatpacking plants (Rowland et al., 2021).

This study did not find a difference in trust based on gender. Workers shared very similar experiences, and working conditions are consistently poor for meatpacking workers. Many meatpacking workers have a responsibility to provide for their families and cannot afford to take time off work due to a recommendation from the occupational health office. In previous studies, workers noted that it was too time consuming to use occupational health services and they feared the point system. (Ramos et al, 2021). Providing education about benefits of using of the health office and how the occupational health office will work with workers perhaps by assigning them to a less strenuous work assignment if injured may increase the levels of trust among males. If the employee handbook could emphasize workers would not be given points if they reported an injury or took time to use these services in a reasonable amount of time this may motivate workers to use the occupational health services. Orientation could be a great time to encourage workers to use these services. During orientation, management could explain to workers that they will not be penalized and that information given to occupational health services will be kept private.

There was no significant difference in levels of trust between limited English proficient workers and English proficient workers, but communication is still an important factor to build trust between a provider and a patient. Communication between the healthcare provider and patient can make all the difference; according to the Accreditation Council for Graduate Medical Education (2016), communication is one of the skills needed to demonstrate competence. If a healthcare provider can communicate effectively with their patient this can foster trust between the patient and the provider. For providers to know how to communicate effectively, they should also be aware of barriers that exist such as “patient’s anxiety and fear, fear of litigation, fear of physical or verbal abuse, unrealistic patient expectations and doctors’ burden of work” (Ha & Longnecker, 2010, p. 39). The RESPECT Model “promotes physicians’ awareness of their own cultural biases and develops physicians’ rapport with patients from different cultural backgrounds” (ACOG, 2016, p. 1). The RESPECT model is composed of the following elements: rapport, empathy, support, partnership, explanations, cultural competence, and trust. Building rapport between meatpacking workers and the occupational health office is the first step to establishing trust. Occupational health professionals need to make sure they avoid any assumptions and are willing to listen to workers. Occupational health professionals need to be empathetic, recognizing workers’ feelings and understanding they may be worried about a variety of concerns or be nervous about visiting the office in general. Occupational health staff can provide support by reassuring workers that they are there to help them and that their health and well-being is their main priority. Working together can help address health problems and can help the workers see that not only is the occupational health office concerned about their well-being but departments and team members such as supervisors care as well. As we found in this study, workers had an average of 9.3 years of formal education. With educational levels varying,

it is critical that the findings of the occupational health professionals explain clearly so everyone that uses their services can understand. With cultural competence, it is important to be aware and respectful of everyone's cultural beliefs and not let biases get in the way of providing quality care. Lastly, everyone working in the occupational health office to those in leadership positions can affect levels of trust of the occupational health office. Continually working on fostering trusting relationships between the occupational health office and meatpacking workers is important and *Total Worker Health* approach can help facilitate this (Ramos et al, 2021).

Total Worker Health (TWH) "promotes occupational policies, programs, and practices to integrate protection from work-related safety and health hazards with promotion of injury and illness-prevention efforts to advance worker well being" (CDC, 2020). Unfortunately, meatpacking workers have expressed feeling as if production is more important than their health and well-being. Putting such an emphasis on production has negatively affected workers perceptions of meatpacking plants. Workers felt as if they were treated as machine or an animal (Ramos et al., 2021). The TWH approach includes important elements such as securing leadership support, developing a culture of safety and health, and empowering workers. This TWH approach can be a reference for those in leadership and management by "developing good listening skills, showing respect to workers at all levels of income or education, and ability to utilize participatory methods as programs are developed" (Newman et al, 2020). Those that are in leadership positions are considered gatekeepers between workers and the occupational health office as they are also the ones that administer points to workers so it is important leaders utilize the TWH approach. For example, if an employee expresses a need to use the occupational health office because of an injury and a supervisor says no and that they need to get back to work this could negatively affect the relationship between the worker and the occupational health office.

Making sure supervisors implement THW could be a motivating factor so meatpacking workers can see that those in leadership roles do support them using the occupational health office. Implementing TWH helps workers advance their overall health and well-being which can positively shift workers' perceptions that they are just a machine to instead a worker that is treated with dignity and respect. Occupational health professionals can help by motivating and sparking interest among workers so they can take care of their personal health and provide them with methods to make improvements in their lifestyles (Campbell & Burns, 2015). These methods can include but are not limited to health screenings, wellness programs, and health education classes. It is important for occupational health office to follow through with health promotion practices (i.e., screenings) so workers feel as if they can trust the occupational health office.

Meatpacking workers can also help foster a trusting relationship between themselves and the occupational health office. If meatpacking workers share their experiences when they used the occupational health office with their coworkers, then other workers can hear firsthand of those experiences. If workers listen to these personal experiences, this may encourage and help others realize it is beneficial to use the occupational health office. Employees can also encourage each other to participate in the new programs that are implemented using the TWH approach.

There are several limitations to note. Although during the data collection process, participants were assured of their confidentiality and that there would be no repercussions if they shared their honest opinion about their work experience, there was still hesitancy. This resulted in a small sample size despite numerous efforts to recruit participants. It is important to take into consideration 90% of participants were Hispanics, and there was limited participation by non-Hispanics as well as few males. A larger and more balanced sample size may have allowed us to

understand the relationship between the levels of trust among meatpacking workers based on ethnicity, gender, and English proficiency more confidently.

Future studies may consider the inclusion of more questions addressing experiences with the health office, health office utilization within the last year, and whether the health office makes an effort to address language barriers and provide screenings (e.g., cholesterol and blood pressure) for early detection of chronic health conditions.

Conclusion

Without an adequate workforce, meatpacking plants simply cannot function. Meatpacking workers are hardworking individuals facing occupational hazards daily. They should feel as if they can use occupational health services because their job is dangerous, and as workers they have labor rights, human rights, and they also deserve to be treated with dignity and respect. Management at meatpacking plants must invest in workers and foster trusting relationships. With the current and ongoing experience with the COVID-19 pandemic, it is going to take time to recover the trust that has been lost. Clearly, it is important to foster trust, and simple changes in practice can start to make a difference.

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