Using a Behavioral Approach To Focus On Hand Injury Prevention (Part 1 of 2)

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Transcribed From www.Safety Culture Excellence.com Podcast
27 April 2008: Using a Behavioral Approach To Focus On Hand Injury Prevention (Part 1 of 2)

Welcome to Safety Culture Excellence. Today's topic, Part 1 of 2: Using a Behavioral Approach to Focus on Hand Injury Prevention. My name is Shawn Galloway, and I'm proud to be your host.

Greetings from Toronto, Ontario. Today's topic is Part 1 of 2 of a recording of a talk that I gave last week about leveraging the tool that's been very effective over the past 25 years and focusing it on a specific body part that represents 25 percent of our injuries. Now, unfortunately, I had to edit out a lot of what was recorded because there was a tremendous amount of discussion and interaction throughout, and because a lot of company names were mentioned by the folks as they providing their examples. I wanted to maintain confidentiality.

So you'll hear that I just repeated a lot of those questions without actually hearing the conversation. Next week will be part two of this topic, and I certainly encourage you that if you have any ideas, or anything else that we haven't talked about in this particular session, I encourage you to submit them to me, and I'll be more than happy to share them with the world if you feel comfortable doing so. So I thank you in advance, and without further delay, here we go.

"Using a behavioral approach or performance management approach to focus on hand injury prevention, performance management is simply setting the objectives behaviorally, determining a way to communicate those objectives, and then positively reinforcing when the objectives and the behaviors are possible. And then coaching when they're not being met. Essentially, what performance management is – and I've got some other stuff to demonstration that – this isn't anything that I've seen many people do, yet. So this is something that I'm starting to see companies start to do, but I haven't yet seen much documented results.

So I wanted to let you know that right up front, so there's some clear understanding of expectations. I'm gonna talk to you about, based on our experience, shared knowledge between Terry and I, and we've talked to several other companies that have had a lot of hand injury exposure, what a possible good approach would be. So a lot of this is gonna be theoretical. So look at your own site and see what's possible. But I wanted to at least give you that warning right in advance that I can't give you a clear formula. These are some things that I see companies doing, so feel free to take away what you can from this, and figure out a way to implement at your own site.

At your facility, just kind of going around the room, what percentage of your injuries are some sort of hand-related injuries? What about your own sites? Seventy percent last year even though he's improved, 60 percent this year, 70 percent last year. Yeah, that's pretty significant. What about some of the other sites, do you know the percentages at your organization? Sixty-seven percent last year. Do you know what it is into 2008? Four out of seven this year. Yes, sir. Did you say 80 percent? Over 80 percent arm and hand. Wow.

Yes, sir. Pareto data over the last few years it was 30 percent, is that what you said? Thirty-eight percent? And about seven years ago, that made some improvements. It was over 80 percent at that time, and then made some improvements now with cut resisting gloves, and the right type of PPE, and the right type of cutting equipment, and you don't have nearly as many.

So that's some of the stuff that we're gonna talk about here. Your hands, your arms, your fingers, all of

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those body parts as it relates to your upper extremities – they're our one of the most frequently parts there. If you think about it, your hands interact with everything in this world. You could say your feet do, too. And, of course, where you're standing and everything, but even your body mechanics, or how you're standing, where you put your hands. Your hands use it for body balance, as you're moving about. Your hands are so exposed, and this is why we thought with combination of – with one of our clients here in the room – we thought that this would be a good topic to at least consider: How can we prevent those things? Because, again, the goal of what we're trying to identify is: What's the most transformational thing to focus on?

Now, there could be underlying behavioral issues, or precautions, that can minimize your hands being exposed to the risks that's out there, and that's what we want to look at. Can we look upstream? But we can't just look at the behaviors that could prevent that, or the precautions that can prevent that. What are the other things that we could do? Sometimes it's even having access to the right gloves. We work in a lot of locations where the gloves just aren't available. The right sizes just aren't available to folks, and typically, again, we don't find that until the incident occurs. So, how do we start looking for the indicators? You guys pretty much answered the question for me. It's, "What's the importance of this? Why are we trying to focus on hand injury prevention?"

According to the Bureau of Labor Statistics, there are about 250 serious injuries per year; every year, personal, off-the-job, over a million emergency visits that are hand-related. The majority of the hand injuries that actually happen are, of course, like the majority of the incidents that we encounter, are, of course, off-the-job. So that's what we want to look at. How can we really pay some special attention to where we're putting our hands, how we're using our hands, how we're manipulating the tools that we're working with?

There were 99,460 cuts and lacerations and over 7,900 – almost 8,000 – amputations in private industry in 2005. That's a lot of exposure. The average roll up all statistics, the average is 25 percent of all industrial incidents involve the hand. If you look at some of the most common dangers once you've done the incident investigation: pinch points, pinch or crush points. A lot of times it's just where you're putting your hands, as this gentleman is doing in this cartoon, there is just where he's putting his hands as he's sitting there watching.

We'll talk about what some of the behavioral precautions that we see are most common, but we first want to just kind of set the stage from an incident investigation standpoint. Where do we see a lot of these things coming from? The next thing that we see obviously is hot surfaces - a lot of people touching stuff. I mean, we learn that as kids sometimes, "Don't touch it, it's hot"; but a lot of times, we don't even have the proper signage. There's a company – I don't know if – I don't think I see any of them in the room – but we were at their site, it was about a year or so into the process, and we were sitting over lunch talking about some of the stuff that they were doing.

They, unfortunately, had a first aid incident right when we were sitting there at lunch, and the safety manager got the phone call. But what happened is they had a hand laceration because they were concerned about line of fire exposure. A lot of your manufacturing sites will put kind of the quarter circle of 'don't stand in this yellow quarter circle right here because it's a bad idea.' Well, they looked at the public building, and they were really concerned about people standing in the line of fire in these restrooms.

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So they put a plastic sign right here that says, "Push slowly," or something just to make sure that somebody wasn't on the other end. And unfortunately, the plastic sign was about a quarter of an inch thick, and it was a hard plastic sign. The incident came from somebody just walking up and pushing on the sign and slit their hand. You know, a lot of times it's just where we put their hands, and you could look at it and say, "Don't put any part of your body where your eyes haven't previously scanned."

But we don't really talk about that as it even relates to hand injuries sometimes. We look at the incidents, and we say because it's people backing up and not looking, or just not looking where they're stepping. Your hands usually impact the things that you're working on before anything else. Rotating devices, chemical exposures, and of course, the machinery not properly locked out. We put a lot of those things in place: we put the signage; but inevitably, we still have those incidents at the end of the year.

Usually, as we categorize these things, a hand as far as its contact with objects – struck against, being slammed in equipment, compressed by equipment, rubbed by friction, chemical burns. The type of wrist injuries that we see are due to body reaction or exertion – bending, climbing, crawling. We see a lot of even the carpal tunnel stuff the way the people are manipulating equipment there, the way that they're moving; sometimes it's the workstation design that contributes to those things. Finger: usually the typical injuries we see the exposure is just contact – struck by, pinched, slammed. And the typical injuries we see, usually when we're classifying these things, you'll see them fall into categories such as: they're puncture wounds, amputation, broken fingers, contusions, temperature-related and electrical-related.

What about your own sites? We talked about some of the statistics and what you guys are seeing. What are you seeing most commonly in your incident data? Cuts, contusions, and puncture wounds. When we looked at the different precautions, and we did our own kind of Pareto analysis on the types of precautions that could have prevented those - now keep in mind what I'm gonna share with you is based on several sites, and a lot of incident data that we looked at. Just as the precaution focus that you guys do specifically in your full behavioral observation process - don't just take these things and just go focus on this.

But these are the ones that we personally saw as we were analyzing the incident reports. We looked at the pace: how fast people were moving, whether it's actually moving their product, or quickly moving climbing up on stuff, wrist injuries, climbing up and down on ladders.

One of the precautions we see most often for this is being able to essentially just take a break. You look at the pressure of trying to produce and get those things fixed. Sometimes people are just trying to take one for the team, and knocking out those 12 hours and not taking that break. Sometimes we've got to look at it and even force a break on some of the folks out there. We want to do what we can to try to make sure that they're safe.

We also saw eyes on path. We see even a lot of spider bites and bee stings on the hands come from people putting their hands underneath something and starting to work on it, and then they get bit. We see a lot of the exposure just by people starting to put their hand on something or opening a door, as the example I gave you earlier - just not looking at a place before you put your hand there. Also, pre-job inspection. Looking at and saying, "What are the particular dangers out this job? What could impact the hand?"

Task coordination: Looking the different tasks that people are doing. Got a lot of tasks going on and

somebody will even divert your attention onto something, and the machine comes down on you. Or, you've got different activities working, and people don't realize that they've got their hand on it. And some of that can come from even lockout/tagout – not coordinating the cleaning of something and then somebody turns the machine on. Even, of course, line of fire. And that's being caught in between something, not necessarily a pinch point; but that moving energy, that moving object.

And, of course, pinch point and tool and equipment use. By tool and equipment use, what we're referring to here is the selection, the condition of the PPE that you're using. Certain chemical gloves you really do need to throw out after you've had for a while. Certain types of gloves you need to be rotating out of the environment. You don't want to just keep them on, and a lot of sites don't thoroughly and regularly inspect the types of PPE that they have.

The use: How are we using those particular PPE, and of course, lockout/tagout. That's one of the biggest things when somebody is working in an area to where they've locked out and tagged out, usually they got their hands in there. Sometimes they have their full body exposing that, but the majority of the times in the lockout/tagout issues that we've seen, is people have their arms in something, or their hands in something because they're actually working on the machine.

For when you looked at your own site, have any of you started innovating and started looking at what precautions may impact hand injuries? Have you all started looking at that at any of your sites? Yes, sir. It's a lot of the overtime – 12-hour – if I could ask you guys since you're across the room here, could everybody hear him okay? Everybody over there, too? Great. Yeah, a lot of times, those are the contributing factors. And we tend to identify those things, again, once the incident happened. I'm gonna propose some ideas on how to classify those things upstream. So let's look at when we start identifying those things: how do we go out and look for the precautions that could impact? Can you observe for pace? It's just people running through. It's actually how quickly they're moving stuff around. Pace is very much an observable precaution. You can go out and look for those things.

What about eyes on task and pre-job inspection? I love this one. I don't know if you see that. Those are snakes in there. They open up the box there, and those are snakes that are inside there. So this is kind of a good example of eyes on task, and of course, pre-job inspection, before you stick your hand in there. I couldn't tell by the head because I see the size. I don't know if it's venomous or not, but one of them right up top there it looks like it's got his mouth open. So it does look a little angry already. So we say, "Well, how do we communicate those things? How do we let people know that there is exposure if you're gonna be sticking your hands in there?"

We come up with signs, right, to warn people. So I love this, "Snakes Inside." It's hot, electrical, but snakes inside. So at least we're letting people know that hey, if you're gonna stick your hand in there, there are snakes inside. Now, of course, my first thing is can we engineer out the risk instead of just going out and saying behaviorally, "watch out." That's a danger. We need to figure out a way to get the dang snakes out of the box there, but at least they're doing something to warn their fellow lineman when they're coming out to do the work on that.

What about line of fire? You guys see this stuff all the time with the neighbors barbecuing, don't you? We call that here in Texas 'Boy Scout water'; but literally, putting their hands in the line of fire, the path of a

moving energy. Fire is moving energy, right? What about pinch points? What about using the wrong gloves for the job? What about using gloves that are awkward, too large? Using gloves around moving equipment? What about how you're using gloves, or how you're using the equipment? But you think about how people use their hands as leverage.

What about tool and equipment use? Using the wrong tool for the job. Pre-job inspection. This is from a construction site, and they used a coke can that they cut open to put the nails in. And you guys know if you've ever seen any houses being built, here in Texas, we build houses really quickly. And they certainly take some shortcuts in there, and you see some very dangerous stuff. But what about the tools and equipment people are using and their exposure in order to reach in there and grab the right stuff?

What about a lockout/tagout? See what's wrong with the left picture? Left the key in it. What's wrong with the right picture? Left the key in it. There's sharps, there's needles inside that box. I personally took that picture either last week or the week before. As I mentioned, my wife's pregnant, and I went with her to the ultrasound. I gave them some feedback at the doctor's office there, but that was there in the room that we were at. They left the key in the sharp's container. That's not a good idea, and there were needles in the sharp's container. And we see a lot of that stuff with lockout/tagout: either not properly closing out and controlling the energy, or people leaving stuff like that in there. Can you observe the potential impact for people's hands?

What about PPE usage? Some of you in my other class, one of the other sessions may have seen this one. I love this. Can anybody spot what's wrong with the helmet? Not wearing it correctly. What about this one? This is just sad. There's places in the world that really don't provide their IPP. If all of you can see this in the back, looks like he's doing some sort of grinding, and he's tied a plastic bag around his head. There's a lot of places in this world that it's still acceptable to expose people to risk. Do people really have access to those? People are gonna get innovative. If they care enough about their own personal safety, they're gonna figure out things to do to minimize their own risk out there, but do they have access?

There's many sites that I go out there, and I look at it, and it's very common to find. When we assess from outside other organizations, that sometimes there's one shift, there's one group of workers that just don't have access to the right stuff. There may be a breakdown in procurement. There may be a breakdown in communication that we need the right amount of gloves. This is just a funny way of depicting this, but think about your own folks out there. Do they really have access to the right PPE? I know that there's a couple of organizations in here that this is required, but not enough sites are paying attention to the amount of jewelry that people are wearing working around equipment.

Too many sites nowadays, still it's acceptable for people to be working around moving equipment with bracelets on, with rings on. And I know some of you in here that as soon as you work past the visitor's area, you've got to take all your jewelry off. You've got to make sure everything's tied up and any ponytail stuck inside the shirt, things tucked in. There's a lot of rotating equipment that are gonna pull things in, and if you've got a strong enough watch on, or ring, and something gets energized, you're gonna probably lose that hand.

I think it's a great idea that any – and maybe, of course, it's easy to be against blanket policies because blanket policies doesn't necessarily affect performance, so blanket policies aren't always great. But this is

one really good blanket policy that I truly believe in. When people are working at least on machine operations, because there's so many opportunities for something that's already on your hand to get pulled out. Because the immediate thing that happens when somebody gets injured, the first thing they're gonna do is they're gonna pull their hand out. And if you've got a ring on there, I'm sure you've probably seen some of the pictures of what happens with that.

My father, when he was about my age, jumped out of the back of a pickup truck and hung himself by his ring. To this day, he does not wear jewelry whatsoever. Of course, learning in safety, it's a painful lesson there. So I think that's kind of the recommendation. Look at the exposure. We don't encourage any blanket policies to just be written out there, but you guys really look at the exposure of people wearing jewelry and around the rotating equipment that they're working with."

Well, that concludes Part 1 of 2 of this topic. So tune in next week for Part 2. And again, as I mentioned when we first started, if you have any ideas or anything that you'd like to suggest or share, if you feel comfortable doing so, please contact me, and I'll be more than happy to share them with the listeners. Until next time, remember: "In safety, prevention trumps reaction." For more information on Safety Culture Excellence, or if you have a topic to suggest, please email us at podcast@proactsafety.com.