

Rights, responsibilities and (re)presentation: Using drawings to convey health and safety messages among immigrant workers

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Abstract.

BACKGROUND: Immigrant workers who are new to Canada are considered a vulnerable population under the Ontario Ministry of Labour Prevention Strategy for workplace safety. Posters outlining workplace safety rights and responsibilities may not be understandable to new immigrants.

OBJECTIVE: To explore visual approaches to making health and safety messages more understandable to new immigrants.

METHODS: This pilot study used arts-based qualitative research methods. Key messages from the Ministry of Labour Health & Safety at Work poster were (re)represented as images by an artist. Recent immigrants engaged in individual interviews and then took part in a focus group, in order to elicit their experiences of health and safety practices, their understanding and feedback concerning the Ministry poster, and the images created.

RESULTS: An image-rich version of the poster was developed. The combination of drawings and minimal text was preferred and considered helpful by participants. Barriers to health and safety and work challenges for new immigrants were highlighted. Visual analysis yielded new versions of the poster, as well as a pictorial representation of the research process and study findings.

CONCLUSIONS: The study demonstrates the value of using image-rich posters with immigrant workers, and the effectiveness of using arts-based methods within the research process.

Keywords: Qualitative research, arts-based research methods, occupational health and safety, immigrant workers

1. Introduction

Work-related injury is a common occurrence world-wide. It is estimated that every day almost

one million workers suffer a work-related injury or illness [1]. In Canada, almost one million people experienced non-fatal occupational injuries in 2005 [2, 3]. The economic, personal and social costs associated with such injuries are considerable [4, 5]. Some worker populations are recognized as being at increased risk for occupational injuries, one of these being immigrant workers [6–8]. Precarious employment, under-recognition of prior credentials

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and education/training, language barriers, documentation status, social class, and race/ethnicity are all factors contributing to the exposure to occupational hazards experienced by immigrant workers, as well as their willingness to report such hazards [7, 9]. Despite the recognition that new immigrants constitute a population vulnerable to workplace injury, relatively few studies have been undertaken to elicit their perspectives and experiences.

Ontario is Canada's most populous province, and a frequent settlement location for new immigrants. Employers and workers in the province are governed by the Occupational Health and Safety Act [2]. It is based on the internal responsibility system wherein the workplace parties have responsibilities for workplace health and safety and which safeguards workers' rights to information, participation in occupational health and safety initiatives, as well as work refusal [2]. As of October 2012, the Ontario Ministry of Labour introduced a new awareness poster (Fig. 1 – "Health and Safety at Work") and mandated that it be posted in all workplaces. The goal was to increase awareness of occupational health and safety principles and worker rights. However it was unclear whether the poster was understandable to and effective for immigrant workers. This paper reports on the results of a pilot study undertaken to elicit the perspectives of new immigrant workers regarding occupational health and safety messages put out by the Ministry of Labour and the workers' understanding of these messages.

The primary goal of our pilot study was to address a recognized gap between policy-makers' efforts to make occupational health and safety messages accessible to new immigrant workers and workers' understanding of those messages. While worker understanding may be partly addressed by translating key messages into multiple languages, other cultural factors may influence both understanding and implementation of the internal responsibility system and basic worker rights.

Another goal was to assess the feasibility of using arts-based qualitative methods to explore visual approaches of making health and safety messages more understandable to new immigrants. We employed arts-based qualitative research methods [10–12] to link participants' experiences and understandings of occupational health and safety with the visual messaging of the poster. Integrating a visual artist as a member of the research team provided an opportunity to produce new image-rich

posters which were perceived to be more responsive to participants' backgrounds and needs than the original text-focused poster.

2. Methods

2.1. Research design

This was a two phase pilot study. In Phase 1, individual in-depth interviews were conducted with participants, to elicit their lived experiences of work and health and safety training since coming to Canada, and to compare these with their experiences in their countries of origin. Participants were presented with the Ministry of Labour poster (Fig. 1) and asked to comment on it. Participants were then invited to view and comment on image-focused posters (Fig. 2) that the visual artist had created based on the concepts in the text-focused original. Interviewees were then invited back to participate in a focus group (Phase 2) where they could comment on images the artist had revised further based on the interview feedback (Fig. 4); the focus group also provided the researchers the opportunity to explore the themes developed in Phase 1 in greater depth. The artist was present during all interviews and the focus group to take visual notes and translate the participants' feedback into a visual form.

This study was reviewed and approved by the St. Michael's Hospital Research Ethics Board. All participants gave informed consent to participate in the interviews and focus groups.

2.2. Participants

A convenience sample [13] was drawn from a volunteer database at a community health centre located in Brampton, a suburban community situated within the Greater Toronto area. This is a popular settlement community for new Canadians [14]. The community health centre serves a large South Asian population, from which the study sample was drawn. The community health centre had commissioned the study artist to create a set of visual images (Fig. 2) related to the Ministry of Labour awareness poster to assist the centre's clients with understanding the concepts in the awareness poster. Given the complexity of cultural influences on the experience and understanding of workplace health and safety, the study team made a conscious decision to sample participants of South Asian background.

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Prevention Starts Here

Ontario's Occupational Health and Safety Act gives workers rights. It sets out roles for employers, supervisors and workers so they can work together to make workplaces safer.

➤ Improve Health and Safety:

- **Find out** about your Joint Health and Safety Committee or Health and Safety Representative.
- **Talk to** your employer, supervisor, workers, joint health and safety committee or health and safety representative about health and safety concerns.

Call the Ministry of Labour at 1-877-202-0008

Report critical injuries, fatalities, work refusals anytime.

Workplace health and safety information, weekdays 8:30am – 5:00pm.

Emergency? Always call 911 immediately.

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➤ Workers have the right to:

- **Know** about workplace hazards and what to do about them.
- **Participate** in solving workplace health and safety problems.
- **Refuse** work they believe is unsafe.

➤ Workers must:

- **Follow** the law and workplace health and safety policies and procedures.
- **Wear and use** the protective equipment required by their employer.
- **Work and act** in a way that won't hurt themselves or anyone else.
- **Report** any hazards or injuries to their supervisor.

Employers must NOT take action against workers for following the law and raising health and safety concerns.

➤ Employers must:

- **Make sure** workers know about hazards and dangers by providing information, instruction and supervision on how to work safely.
- **Make sure** supervisors know what is required to protect workers' health and safety on the job.
- **Create** workplace health and safety policies and procedures.
- **Make sure** everyone follows the law and the workplace health and safety policies and procedures.
- **Make sure** workers wear and use the right protective equipment.
- **Do everything** reasonable in the circumstances to protect workers from being hurt or getting a work-related illness.

➤ Supervisors must:

- **Tell** workers about hazards and dangers, and respond to their concerns.
- **Show** workers how to work safely, and make sure they follow the law and workplace health and safety policies and procedures.
- **Make sure** workers wear and use the right protective equipment.
- **Do everything** reasonable in the circumstances to protect workers from being hurt or getting a work-related illness.



<p>Employers must...</p>  <p>Provide a clean & safe workplace.</p>	<p>Workers must...</p>  <p>Practice good housekeeping.</p>	<p>Employers must...</p>  <p>Clearly identify hazards.</p>	<p>Workers must...</p>  <p>Know & obey hazard warnings.</p>
<p>Employers must...</p>  <p>Clearly label any unsafe conditions.</p>	<p>Workers must...</p>  <p>Pay attention to surroundings.</p>	<p>Employers must...</p>  <p>Provide safety training.</p>	<p>Workers must...</p>  <p>Follow safety procedures.</p>
<p>Employers must...</p>  <p>Ensure safe work practices.</p>	<p>Workers must...</p>  <p>Work & act in a way that won't hurt themselves or others.</p>	<p>Employers must...</p>  <p>Tell workers about hazards & dangers.</p>	<p>Workers must...</p>  <p>Report hazards & unsafe conditions.</p>
<p>Employers must...</p>  <p>Make the rules understandable.</p>	<p>Workers must...</p>  <p>Make sure they understand the rules.</p>	<p>Employers must...</p>  <p>Respond to worker health & safety concerns.</p>	<p>Workers must...</p>  <p>Speak up. Ask questions. Raise concerns about health & safety.</p>
<p>Employers must...</p>  <p>Protect the worker.</p>	<p>Workers must...</p>  <p>Wear & use the protection.</p>	<p>Employers must...</p>  <p>Provide clear first aid & emergency procedures.</p>	<p>Workers must...</p>  <p>Report injuries & close calls.</p>

Fig. 2. Initial image-rich poster.

WORKPLACE HEALTH & SAFETY IS A TWO WAY STREET

EMPLOYERS ↔ WORKERS

PREVENTION IS A SHARED RESPONSIBILITY

THE WORKPLACE IS A COLLABORATIVE EXCHANGE

<p>Employers must...</p> <p>Make the rules understandable.</p>	<p>Workers must...</p> <p>Make sure they understand the rules.</p>	<p>Employers must...</p> <p>Respond to worker health & safety concerns.</p>	<p>Workers must...</p> <p>Speak up. Ask questions. Raise concerns about health & safety.</p>
<p>Employers must...</p> <p>Provide a clean & safe workplace.</p>	<p>Workers must...</p> <p>Practice good housekeeping.</p>	<p>Employers must...</p> <p>Clearly label any unsafe conditions.</p>	<p>Workers must...</p> <p>Pay attention to surroundings.</p>
<p>Employers must...</p> <p>Provide Protection.</p>	<p>Workers must...</p> <p>Wear & use the protective gear.</p>	<p>Employers must...</p> <p>Provide clear first aid & emergency procedures.</p>	<p>Workers must...</p> <p>Report injuries & close calls to their supervisor.</p>
<p>Employers must...</p> <p>Provide safety training.</p>	<p>Workers must...</p> <p>Follow safety procedures.</p>	<p>Employers must...</p> <p>Tell workers about hazards & dangers.</p>	<p>Workers must...</p> <p>Report hazards & unsafe conditions.</p>
<p>Employers must...</p> <p>Clearly identify hazards.</p>	<p>Workers must...</p> <p>Know & obey hazard warnings.</p>	<p>Employers must...</p> <p>Ensure safe work practices.</p>	<p>Workers must...</p> <p>Work & act in a way that won't hurt themselves or others.</p>

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Call the Ministry of Labour at 1-877-202-008
Report critical injuries, fatalities, work refusals anytime.
Workplace health and safety information, weekdays 8:30 - 5:00pm.

Find out more:
ontario.ca/healthandsafetyatwork

Fig. 3. Final image-rich poster.

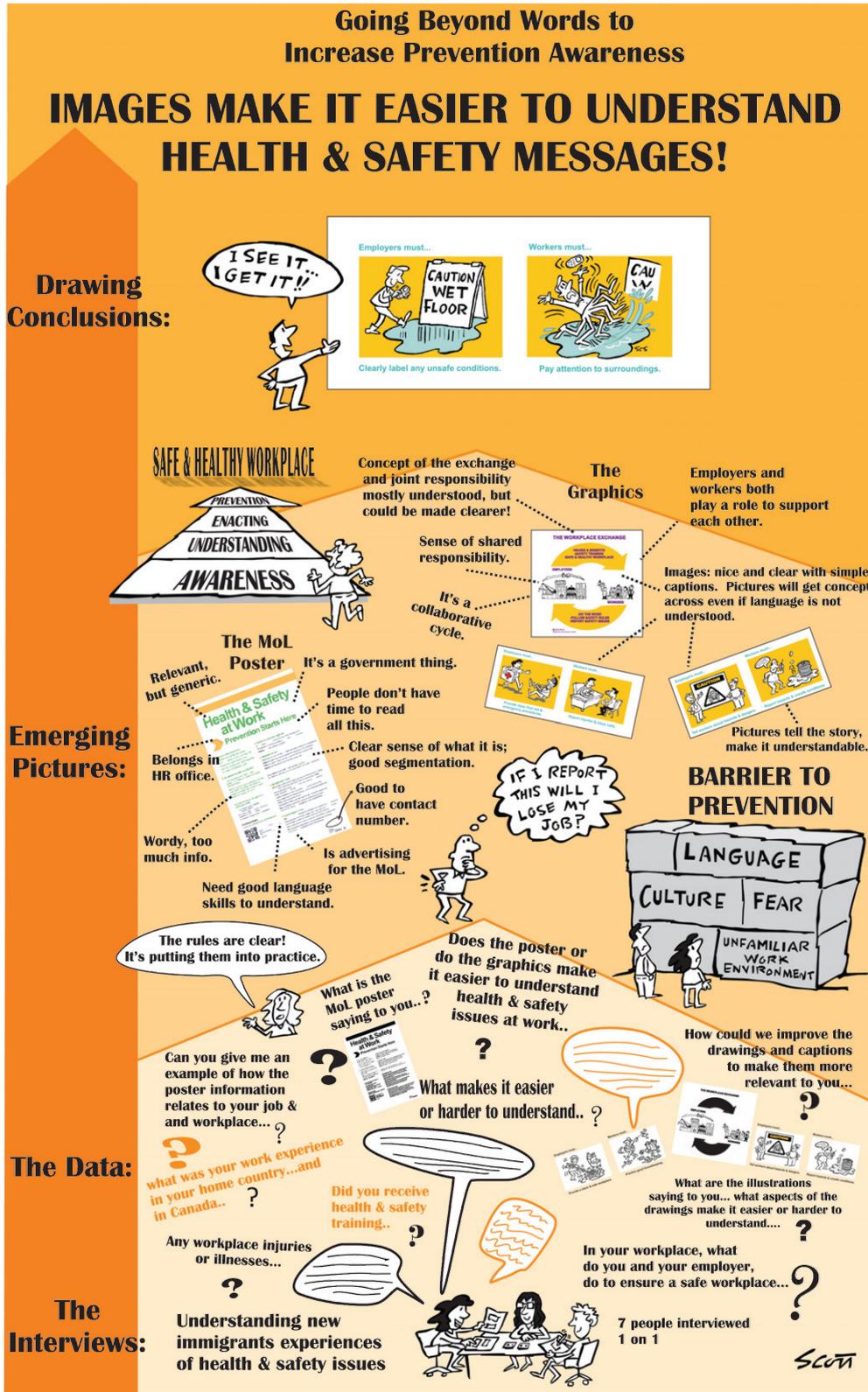


Fig. 4. Graphic representation of the research process

Seven participants took part in individual semi-structured interviews and three of these participants attended the focus group. All participants were from the South Asian community. All had immigrated to Canada within the past five years. Four were female and three male. Their ages ranged from 31–50. Six people had Canadian work experience, while one person was currently looking for their first Canadian job, but had prior work experience from their country of origin. One person had no work experience in their prior country, but had Canadian work experience. At the time of the interviews, 5 people were currently working. Three participants were available for the focus group – 2 female and 1 male. All were working at the time of the focus group. Participants were all able to speak and understand English, and most were engaged in ‘white collar’ jobs.

2.3. *Data collection procedures*

The pilot study applied a qualitative approach using arts-based methods [11] to investigate new immigrants’ experiences of health and safety in the workplace and their perceptions of the text-based and image-rich health and safety posters, produced by the Ministry of Labour and the visual artist (SS) respectively. An experienced qualitative researcher (CM) conducted the interviews and facilitated the focus group, working alongside the visual artist. Central to the arts-based method was the role of the artist who developed the images and worked with the participants to ensure these images conveyed health and safety messages in a way that was easily understood by new immigrants. The artist was present throughout the interviews and focus group and also drew a graphical representation of the process [15]: from interviews, to working with the data, to drawing conclusions (Fig. 4). Throughout the interviews and focus group she drew and made notes on the discussions. The artist worked directly with the participants during the interviews and focus group, asking for suggestions to improve the drawings or come up with new ones. Semi-structured individual interviews and a focus group were used to engage participants in a dialogue about health and safety issues in the workplace from a recent immigrant’s perspective. Interviews enabled individual experiences and perceptions to be discussed and the focus group enabled the issues raised to be discussed in a group setting to form a consensus [16].

The semi-structured interviews followed an interview guide, which was designed to gather information

about participants’ work experiences and health and safety training in Canada; their perceptions and understanding of the Ministry of Labour Health & Safety at Work poster (Fig. 1); their perceptions and understanding of the images developed by the artist (Fig. 2) to represent the key messages of the Ministry of Labour Health & Safety at Work poster, as well as asking for suggestions to ensure the images were understandable to new immigrants. The images representing the poster were developed by the artist prior to the interviews to explore immigrants’ views on the effectiveness of images to convey health and safety information to new immigrants.

The focus group interview guide was developed after the individual interviews, and was based on the themes arising from the interview analysis in Phase 1. The focus group guide covered the following areas: participants’ views on the graphical representation of the interview process (Fig. 4); their perception of the amended visual poster (Fig. 3); suggestions for changes in the workplace to better support new immigrants; a comparison of home country and Canadian workplace experiences; and for participants’ views on their self-perception when they started looking for work in Canada or started their first job. The visual poster was developed by the artist from the feedback given during the individual interviews.

2.4. *Analysis*

Both the interview and focus group data were analyzed by taking an iterative and inductive approach using a qualitative content analysis technique [17] which draws on grounded theory methodology [18]. This is a participant-centred style of analysis where the coding and themes emerged from the data using the same words the participants had used. This enabled the researchers to be focused on the analysis from the participants’ viewpoints and ensured the focus group guide questions were relevant to their experiences.

Before analysis, transcripts of the interviews and focus groups were checked for accuracy and imported into NVivo (version 10), a qualitative software program which supports data management and analysis [19]. Preliminary analysis involved reviewing the transcripts several times to code key points in the text. These descriptive codes were grouped and categorized according to themes emerging from the data. A constant comparison approach ensured that codes and themes were continually revised as the transcript data were reviewed [20]. Only when no more new codes,

themes or revisions emerged, was the data analysis considered complete [21].

Concurrently with the analysis of the interviews, the artist took her notes and drawings and turned them into a graphical representation of the process [15], with key issues represented and the main conclusion highlighted (Fig. 4).

3. Results

Participants highlighted differences in their Canadian and home country health and safety training and workplace experiences. In particular, barriers and enablers to health and safety were raised, as well as work challenges faced by new immigrants. The difficulties faced by new immigrants went beyond the workplace and impacted upon their personal lives, negatively affecting their families and their self-esteem.

Participants found the image-rich poster easy to understand and felt that the concepts represented were understandable even without the text and would be helpful for immigrants whose language proficiency may be a barrier to comprehension.

3.1. Health and safety experiences in Canada

Most participants offered accounts of health and safety training they had received in Canada. Training was portrayed as easy to understand, but was perceived to be the minimum needed, and participants felt that employers did not really check back to ensure their understanding.

“In my previous job, although there was that training on the computer system that you go through, I mean, you just went through it because you had to finish the module to show, yes, you had finished the module. There (were) no checks and balances basically” [P1]

They indicated that there were no experiences of health and safety training offered in their home countries, with participants indicating that they were expected to ‘find this out’ for themselves.

One participant recounted suffering stress due to long hours in a competitive commission-only position in Canada. The employer did not offer any solutions, resulting in the participant feeling like the employer did not care; the participant ended up leaving that workplace due to feeling stressed and unsupported. Other participants reported generally

positive experiences with their employers. They said they were encouraged to report health and safety issues, and noted that issues raised were quickly resolved.

3.2. Barriers and enablers to health and safety for new immigrants

Fear of losing one’s job was cited as the main barrier to immigrant workers reporting health and safety issues. Although the Ministry of Labour Health & Safety at Work poster makes it clear that no action can be taken against workers for reporting issues, participants expressed concern about who to trust in the workplace.

“Most importantly, my boss should be giving me a reinforcement that says: “It’s ok, if you don’t feel safe, come and talk to me.” That is an important point. I mean, overall I think everybody is going to say the same thing. Fear of speaking up. So why is that fear, what can be done about breaking that barrier? I think that’s what it’s coming down to.” [P5]

Many immigrants are working in low paid jobs and think it is too easy to lose their jobs and be quickly replaced by others. The unfamiliarity of the working environment compounds this feeling.

New immigrants were said to be under pressure to get a job to support their family and establish themselves in Canada. Participants indicated that it is hard for them to find employment, so when they do, they are reluctant to speak out against their employer should concerns arise. Sometimes working conditions may be better than their home country, even with reportable health and safety issues, so participants said they would put up with those conditions for fear of losing their jobs. Survival becomes the bottom line, adding to the stress of the situation.

“So, coming and trying to get a job, for one it’s difficult, for one you have to stoop to the gutters I would say, to make sure that you provide for your family, one you will be unhappy, but there is nothing more you can do because it’s still a better environment than what you had in your own country before, at the end of the day...” [P1]

Participants said that the burden of fear should shift from workers to employers. If the employer is afraid of the consequences of not providing a safe working environment, then they should encourage and welcome their employees reporting issues. For this to

happen, enforcement is key and should be the responsibility of government, who could provide incentives to companies to enable this.

“Profits – so that means the employer has to have some kind of incentive maybe. It could be a tax break, it could be different ways of addressing the issue that it is ok for the employee to say, provide a safe room for me to work for you, you know?” [P5]

They also suggested that fostering a positive and collaborative attitude between employer and employee may lessen the fear that people have of raising health and safety issues. The participants who had positive relationships with their employers had no hesitation in raising concerns.

3.3. Canadian work challenges for new immigrants

Participants reported difficulties in securing employment in Canada. The process of trying to get a job was characterized as very difficult and different to what they have previously experienced in their home countries. They had to market their skills in unfamiliar ways, and reported having several different resumes for different jobs. Identifying and categorizing their skills (breaking them down) was said to be hard, as previously their abilities had been seen as a coherent whole, not divided up into individual skill sets.

“Yeah I mean all those soft skills and hard skills were never differentiated. So here, anything you know, you have to categorize into what kind of skill you have. Out there, it’s not identified as an each and every skill, so for us, like communication, for example, has so many different levels, right? And that was never identified back home. So I believe, as I said, everything is disintegrated, and integrated, and you are able to identify every piece of it. Out there, picture is more seen as a whole, rather than being divided . . . ” [P7]

Participants also reported that it was very difficult to get a job in the same profession, or a job that at least was at a similar skills level as they had in their home country. The process of job hunting was summed up by this participant:

“Terrible. Just imagine with all those skills you have, everything you have, you are just sitting at home having no job, applying hundred of

applications daily and no response from anybody is kind of – very, very, disheartening because . . . I believe the biggest challenge is job hunt. The biggest challenge out here I felt personally was the job hunt. Terrible.” [P7]

One participant decided not to pursue their original skilled occupation and retrained in another occupation in the same industry. Proving you had the skills in your profession was hard as many years of prior experience counted for little and bridging courses had to be taken.

A new immigrant without Canadian experience and seeking employment was seen to be in a catch 22 (i.e. mutually conflicting) situation. New immigrants do not have Canadian experience which seemed to be a prerequisite to securing most jobs; but they cannot get this experience until they get a job in Canada. From their experiences they see a disconnect within government departments: immigration quotas for certain occupations, but no jobs when people get here as they have to retrain due to not being qualified for the Canadian workplace.

“I think there’s a big segregation within the immigration department of the government of Canada and people immigrating, what happening to them. I mean it’s not (in) synch, I mean the immigration is saying you are good to come, but when you reach here you are not good to be employed. So there needs to be something happening to bridge that gap. So I mean one part of the government is saying we need to populate the provinces, another one is saying no we can’t offer you a job because you are not good to work. It seems as though both ministries are not talking to each other and finding a solution to the problem . . . ” [P1]

3.3.1. Self-esteem changes

All the participants recounted that the move to working in Canada had negative consequences for their self-esteem. One participant told how they felt pressure to get a job after their child called them a ‘loser’ for being unemployed:

“ . . . I got the rude awakening by my daughter; (who) said: “dad you are a loser” a few times, and then I decided to go to college and do something else, because I don’t want my daughters to say their father (is) a loser coming to Canada, have no job, no future.” [P1]

Participants reported feeling ‘useless’, especially when skilled immigrants were unable to use their

pre-existing skills, and felt all they were doing was sitting at home applying for hundreds of jobs. Participants said that sometimes they took some of their skills off their resumes just to try to get a job, but that this felt demeaning to them. Pressure to support one's family, but being unable to, caused problems at home. Participants reported feeling distressed when unable to contribute to household income, or being unable to make purchases for their children. They also felt pressure to secure jobs to support other family members back in their country of origin.

All of these pressures exacerbate the fear of losing a job once an immigrant has secured one and could leave the new immigrant perceiving themselves to be more 'vulnerable' than other workers.

3.4. Health and safety awareness posters

3.4.1. Ministry of Labour poster

The original poster (Fig. 1) conveyed workers' and employers' rights and responsibilities in an understandable way, through the use of bold headings and sections. However, participants thought that conveying the information in a wordy and quasi-legalistic manner could prove challenging for new immigrants whose language skills were poorer. They saw the poster as something that was a requirement to display, but not necessarily something that employers would follow. The overall messages conveyed were the rights and responsibilities of workers and employers. It was also noted that the poster did not give specific health and safety advice:

"This poster is just giving a general idea about what workers should do or know or follow. It's about WHMIS, the right to know and participate and refuse, and giving them Ministry of Labour telephone, and some information to ask about legal things I think, but it doesn't give health and safety advice or rules or, you know?" [P4]

Although the poster states that employers must not take action against workers for raising health and safety issues, participants wanted to see more reassurance on the poster that they would be protected.

3.4.2. Image-rich poster

The artist took the key messages in the Ministry of Labour poster and developed them into two main images for a new poster (Fig. 2). The first image was the 'workplace exchange', designed to represent the overall responsibilities of employers and workers as a shared and collaborative responsibility. The second

image was a set of dyad (paired) images, designed to show the responsibilities of both employers and workers in the specific areas mentioned in the Ministry of Labour poster.

The 'workplace exchange' image was understood by participants as a collaborative exchange between workers and employers, with responsibility on both sides to ensure a safe working environment.

"... so it's a cycle, wage and benefits, safety training and safe and healthy workplace is the responsibility of the workers, and the employers to provide these three basic areas of benefits if you will – and the workers in return are going to do the work, and follow the rules, and you know, report safety issues. So you are calling it an exchange, obviously it's an exchange because employers are providing this, and in return, workers are giving this to the employers, so it's obviously a workplace exchange, for sure." [P6]

However, interpretation of images is not always uniform. One participant saw this exchange as representing inequity between rich bosses and poor workers.

The dyad images were portrayed as easy to understand since the drawings conveyed the basic concept and the text was written in a simple way that reinforced the concept. In fact, participants felt that the concepts were understandable even without the text.

"... even if I read the information below, I know what they are going to be talking about. So anybody who has, I believe – this is my personal view – I believe anybody who has a – even if doesn't – is not able to read, or visually the font size is not big enough for a person to read, but at least would gather the information, like what it is trying to depict. Like what it is trying to say. So the pictorial form is making it pretty understandable, and yeah, like simple ... even if the 'caution wet floor' would not have been written, I think I could have felt that, ok, you know what it is trying to say." [P7]

The dyads prompted suggestions for additional dyads that might be important to include. For example, one participant had experienced harassment in the workplace and felt that a dyad regarding women's rights should be included. Other suggested dyads included reassurance that workers should be encouraged to speak up if they witness hazards, the importance of hand washing, and reporting of suspicious activity (i.e. thefts) within the workplace.

Overall, participants considered the drawings easier to understand than the Ministry of Labour poster and ideal for new immigrants for whom language could be a barrier. However, using a combination of images and text enabled differing personal comprehension styles to be addressed.

“Some immigrants may not be able to read in English, or understand the level of English here. But this might also apply for them here as well, but at least the visuals will give them probably some clues, and help them understand the messages which is here.” [P6]

3.5. Graphical representation of the research process

The research process was captured in a graphical representation (Fig. 4) which the artist developed from the notes and drawings taken during the interviews. This image shows both the process of the research and also highlights the key themes arising from the discussions. The key themes represented in the image also mirror the key themes arising from the analysis of the transcripts, which contributes to the trustworthiness and rigour of this pilot study [22].

Focus group participants were shown this image and agreed that it accurately summarized their views and the flow of the research process was clear. They also agreed with the key conclusion raised, that the images were easy to interpret and understand in the context of health and safety at work.

4. Discussion

This pilot study explored the experiences of recent immigrants adjusting to Canadian work environments and their understanding of occupational health and safety messaging delivered in various formats. While the participants recounted largely positive experiences themselves with Canadian employers with respect to health and safety training and messaging, they also indicated that they did not feel that employers followed up to ensure workers' understanding of the rights and responsibilities held by both parties. Participants also noted that in their countries of origin they had rarely if ever engaged in health and safety training, and it was left to them to 'figure it out for themselves'. The most significant barrier to reporting health and safety concerns to employers was fear of job loss. Participants spent

considerable time and energy portraying the difficulties in obtaining employment in Canada and how joblessness impacted negatively on their self-esteem. While participants recognized that in theory they could not be fired for pointing out hazards in the workplace, in practice they were worried about whether this was merely 'lip service' and that their jobs might be at risk if they raised concerns. Our participants said that the burden of fear should be shifted from employees to employers, so that employers should be worried over the consequences of not providing a safe environment and that government should be responsible for enforcing said consequences. The quality of the relationship with the employer could serve to mediate immigrant workers' willingness to report. Finally, the participants were able to provide important feedback concerning text-heavy versus image-rich versions of the Health and Safety at Work posters, indicating that visual portrayals of key messages were more clearly understood than text-heavy versions. Employing visual representations of the research process served to capture participants' experiences of the study itself, further enhancing analytic rigour, and offering an alternate format for representing the findings [23–25]. The study contributes to our understanding of how viewers interpret visual images and how they serve to enhance understanding of key concepts in the field of occupational health and safety.

Workers who are relatively recent immigrants are recognized as being at increased risk for occupational injuries and diseases [3, 8], yet there has been relatively little research to date on their experiences and perspectives. This study begins to illuminate the complex set of circumstances experienced by new immigrant workers entering Canadian workplaces, and demonstrates the multiple barriers to reporting workplace safety issues. One of the primary barriers is fear of job loss following reporting [26]. The blow to self-esteem related to joblessness or working in a lower-skilled job as depicted by our participants is an important finding. Sienkiewicz and colleagues noted employment-related identity shifts in their study of refugees in North Carolina [27]. Chen and colleagues [28] in a Canadian survey found that immigrant workers who were overqualified for the jobs they were currently working in (based on prior education levels) were more likely to report a decline in mental health. This suggests that the reduced self-esteem reported by our participants might eventually translate into important occupational health outcomes and should be attended to.

Of interest is that some participants noted that ‘good’ relationships with employers made them more comfortable reporting occupational health and safety concerns. While this perception may seem intuitive at first glance, it should be noted that assumptions regarding employers’ willingness or ability to respond to workers’ concerns are not always straightforward. As Eakin and MacEachen [29] have shown in their research of small workplaces, the camaraderie of such work environments can sometimes foster feelings of deep resentment when workplace injuries do occur and when employers attempt to encourage “early” return to work. Knowing the correct lines of reporting and obligations as mandated in legislation is important as this helps to mitigate misunderstandings that may arise in the context of a worker-employer relationship. Such misunderstandings can have important consequences should an injury occur. In their study of workplace injury amongst immigrant workers, Kosny and colleagues [30] noted that lack of familiarity with relevant policies by immigrant workers can leave them open to being misled by some employers regarding their rights and responsibilities.

The building of poster-upon-poster, and image-upon-image enacted in this study attests to the different form of knowledge production inherent in arts-based research [10, 23, 31]. We are not the first authors to apply visual methods in the field of occupational health and safety. Flum et al. [32] employed photo voice to highlight workplace health and safety hazards and to empower workers to engage more actively in change management. However the intent of our study was not to use the drawings to document workplace hazards as Flum’s study did, but rather to understand immigrant workers’ perspectives and explore alternative forms of representation to translate knowledge in compelling ways to workers who might be experiencing language barriers. In Scotland, Cameron and colleagues [33] used pictorial aids to enhance migrant construction workers’ understandings of occupational hazards and found that the addition of pictorial materials was associated with increased knowledge test scores when compared to text-only materials alone.

One of the goals of our study was to acquire pilot data regarding the feasibility of using arts-based approaches to study immigrant workers’ understandings of occupational health and safety messaging. The feasibility of such approaches has been demonstrated, in that the use of images served to deepen the conversation with participants, yielding new insights

into the topic and suggestions for both improving the images developed still further, along with recommendations for new images that might promote greater understanding amongst immigrant workers. For example, the issue of self-esteem was not a focus at the outset of the study, but the additional reflections prompted by interacting with the various poster formats enabled further conversation and sharing of experiences within the focus group. This is a fruitful avenue for future research. In addition, the expansion of the study to a wider range of new immigrant workers with more varied ethno-cultural backgrounds and with varied English language proficiency is needed. The methodology applied here could also be used to study the perspectives of other vulnerable populations regarding their understanding of workplace health and safety – for example, young workers.

This study has a number of limitations. Data were collected from an admittedly small number of participants, even by qualitative research standards. The goal was to determine the feasibility of using arts-based approaches (specifically drawing) to investigate the topic of new immigrant workers’ understandings of workplace health and safety messaging in their adoptive country. Despite the small number of participants ($n=7$), this project has yielded relatively rich data for analysis (both textual and visual) and has provided valuable insights regarding how new immigrants understand the rights and responsibilities of employees and employers to ensure healthy and safe work environments. Further exploration using illustrations as a form of knowledge translation for health and safety messages related to the internal responsibility system and worker rights is warranted.

Another limitation is the inclusion only of English-speaking participants. While this was necessitated for pragmatic reasons, nevertheless it will be important in future studies to include participants who either have limited English proficiency or are unfamiliar with English in order to assess the extent to which their perspectives on the image-rich poster are similar to, or different from, those who participated in this pilot study. A final limitation is that these data capture perspectives of immigrant workers who came to Canada during a particular policy period. All our participants had immigrated to Canada in the past 5 years under a federal skilled worker program, entailing a points system. More recently, Canada has instituted a new Express Entry immigration policy [34], whereby immigrants who have already secured an offer of employment are giving faster entry to the country.

It will be important in future studies to compare the experiences of those who entered under the old policy with those who have been part of the Express Entry initiative.

5. Conclusion

This pilot investigation adopted an innovative methodological approach to study injury prevention strategies, which in turn illuminated the intersection of a variety of psychosocial factors that influence immigrant workers' understandings of occupational health and safety policy. This study demonstrates the value of using image-rich posters for new immigrants, and confirms the feasibility of using arts-based methods within the research process with this population. It has highlighted important concerns for immigrant workers, portraying a complex web of influences on their experiences of occupational health and safety training and on entering the Canadian workforce. As such it lays the groundwork for future research.

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Conflict of interest

The authors have no conflict of interest to report.

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