Safety First Means Safety Fits- An Awareness Campaign for Inclusive PPE Designed for Women

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The construction industry has long overlooked the unique needs of women in terms of personal protective equipment (PPE), leading to discomfort and safety risks. This paper presents the "Safety First Means Safety Fits" social media awareness campaign, which aims to increase awareness about the importance of size-inclusive PPE for women and the progress being made in the industry. The campaign utilized social media, specifically Instagram, as a platform for dialogue and information distribution. The campaign involved the creation of an Instagram account (@safetyfits_CP) and the development of six posts addressing various aspects of women's PPE. The posts were promoted through other social media platforms, attracting followers, and generating interactions. Analytics data from Instagram's business account platform was analyzed to evaluate the campaign's effectiveness. Findings showed that the initial post, which introduced the campaign and its goals, received the most interaction, reaching a wide audience and attracting new followers. The post that advertised the second annual VEST Hackathon received the least interaction, possibly due to the use of less targeted hashtags. Overall, the campaign successfully increased awareness among 86 followers and received impressions from 280 accounts, fostering discussion and informing women about existing solutions and potential solutions. This paper highlights the importance of addressing gender disparities in PPE and demonstrates the potential of social media as a powerful tool for creating awareness and promoting change within the construction industry.

Key Words: PPE, Instagram, equality, safety, social media

Introduction

The construction industry is historically male dominated with women only making up 10.9% of the United States construction workforce in 2022 (Employed persons by detailed industry, sex, race, and Hispanic or Latino ethnicity, 2022). Although there are many factors which influence women’s decisions to work and persist within the construction industry, there are many hazards which exponentially affect women such as higher levels of psychological stressors like isolation, lack of adequate training, and hygiene concerns (Michelle Turner, Sarah Holdsworth, Christina M. Scott-Young & Kara Sandri, 2021). Additionally, when women show up on job sites, they are often issued
improperly fitting personal protective equipment (PPE), which is typically designed to fit the atypical male body type (Stewart, S. L. 2022). PPE provided by many of the leading construction firms has been designed to fit male proportions which means that women are left with improperly fitting PPE that jeopardizes their safety and confidence (Galvez, L. G. 2020). To bridge the gap and foster a more equitable work environment for women in the industry, properly fitting PPE is necessary to help women prosper and stay safe.

Although women’s fitted safety vests are available, they lack exposure which means many people are not aware of these options, they are more expensive, or take weeks to supply. To increase awareness of properly fitting vests, a social media campaign entitled, Safety First Means Safety Fits was developed. This awareness campaign, using Instagram, was created to increase awareness and instill a channel for dialog revolving around properly fitting PPE designed for women of all sizes. Through this campaign, six Instagram posts were created to highlight student research, solutions, and next steps. The purpose of this paper will present the findings from using Instagram as a platform to create a community designed for women to find solutions that fit their needs and allow them to feel safe and confident on their job sites.

**Literature Review**

The construction industry is a hazardous industry which presents its workers with conditions that are prone to injury or accidents (Employers must provide and pay for PPE - Occupational Safety and Health, 2017). This requires employers to enforce safe working conditions which means they are required by OSHA to provide safety equipment to the workers at no additional cost, including high visibility safety vests (Employers must provide and pay for PPE - Occupational Safety and Health, 2017). Safety culture within construction has evolved over the years and many of the leading companies have put forth effort to develop advanced safety plans that help with preventing injury and accidents on their sites which includes the use of PPE.

Skanska, a multinational construction and development company, has worked with their female employees to develop a vest design that better fits their needs. Jarrette Milligan, vice president of environmental safety and health at Skanska, states that “During [his] career, [he has] had to order and hand female employees PPE that is designed and manufactured for men” (Launching tailor-made PPE for our female workforce nationwide, 2019). This lack of properly fitting PPE for the growing group of women in the construction workforce inspired him to act and develop vests designed for women. Two different vest options from the manufacturer Radians were produced. The changes made to the design included “a large, interior pocket, front pocket for storage of pens and field books and microphone straps” as well as having an “adjustable elastic band that allows the wearer to tighten the vest around the waist” (Launching tailor-made PPE for our female workforce nationwide, 2019). This helps to address tradeswomen’s reporting of the lack of safety equipment designed to fit their needs (Wagner, H., Kim, A. J., & Gordon, L., 2013).

**Social Media for Social Change**

Social media has been used as a platform to create awareness surrounding a wide variety of topics ranging from health and wellness to social causes. Social media is unique in the way that it can reach a large audience via one platform which can expand the reach and the impressions that any given content receives. Mundt et al. (2018) discusses how some of the benefits surrounding social media are “coalition building, personal networking, and resource mobilization”. They also found through their
research that “online networking features such as ‘likes’ or ‘followers’ also augment the profile and status of a group with the click of a button” (Mundt, M., Ross, K., & Burnett, C. M., 2018).

Social media for social movements is used to “create space for online social networks that allow activists to strengthen connections and build social capital” (Mundt, M., Ross, K., & Burnett, C. M., 2018). To build the social capital social media can bring together diverse groups of people to stand together for a given cause. It is important to note that “social media is not used solely to disseminate information about movement tactics or actions but also plays a role in shaping the very discourse on issues that social movements raise” (Mundt, M., Ross, K., & Burnett, C. M., 2018). The vast options of social media platforms allow for the content creators to shape the narrative of the information and tailor it for the target audience.

Methods

For the social media awareness campaign, an Instagram account was created with the handle @safetyfits_CP. Six different posts (see figures 1 through 8) were then developed and uploaded to the Instagram account with captions relating to the different topics. In this section methods and finding of the post with the most interaction as well as the post with the least interaction will be discussed by reviewing the analytics collected via Instagram's business account platform.

Lizette Galvez collected data that demonstrated that improperly fitting PPE affects the work environment negatively for different genders by creating safety hazards and confidence concerns (Galvez, L. G., 2020). Sophie Stewart took the data collected in Lizette’s survey and hosted the first VEST Hackathon which was a two-day event where industry members, students, and faculty took part in redesigning the safety vest to fit a wider range of body types (Stewart, S. L. 2022). The previous student senior projects helped to expose the issue of improperly fitting PPE but did not have a way to advertise the findings and solutions, for that reason @safetyfits_CP was developed to help bring awareness to the cause.

To set up the Instagram account an email was made to link the account to an owner. With an email the account was set up with the username @safetyfits_CP via Instagram.com. The account was established as a business account which means you can allow Instagram to collect data on the account and posts. Instagram says that by establishing a business account you have access to “viewing insights that can help you understand who is engaging with your business on Instagram” as well as “Access [to] the Professional Dashboard, where you can track your performance, access and discover professional tools, and explore educational information curated by Instagram” (Start a business account on Instagram | Help Center).

With the account being public anyone who has access to Instagram can view the post and follow without the account approving the follow request. The way Instagram measures engagement is by views which means one account clicks on the account and views the profile. Viewers can also engage in the content by liking the post as well as commenting which can be seen by all other viewers. There are options to share the posts to other accounts via direct messaging. For the captions hashtags were included to help increase exposure. Hashtags are broad terms following a pound sign (#) which anyone on Instagram can search and see all posts with the same hashtag. The captions are used to give context to the given post and provide more details. To gain a following the account was advertised on other Instagram accounts such as Cal Poly Women in Construction and Cal Poly ASCM because students and industry members already follow these accounts which is the audience that Safety First Means Safety Fits is trying to reach. The account username was also sent out in an email to the
construction management department to ensure all students were aware of the Instagram account in case they do not follow the other two accounts. The account was also posted onto LinkedIn which is a business networking app. This is another way to expand the audience and reach other construction professionals that are not in the Cal Poly Construction Management network.

Results and Analysis

Once the account @Safetyfits_CP had over 50 followers the first post was released. The baseline of 50 followers was selected as the milestone for the first post to be released because a following had been established which means that 50 people would have the post on their personal Instagram timeline (see figure 1). The post outlined what the following content will be covering as well as introducing the author of the account and posts. The first post was the most interacted with as it reached 280 different accounts. 24 of the accounts were followers and 256 were non-followers. The post received 44 likes, 4 comments, 12 shares, and 3 saves. The post received 318 impressions which means the number of times a person viewed the given content. Of those impressions, 31 were from the various hashtags. After seeing the post 38 people followed the account and 147 people visited the overall profile. The first post received the most interactions due to it being uploaded onto the account before we advertised the account on multiple platforms. When a user viewed the account there was only one post for them to interact with and read the caption. This post gained the account the largest number of followers as it was at the beginning of the awareness campaign.

![Figure 1: Introduction post to the content on Safety Fits Instagram](image)

The final post received the least amount of reach which was an advertisement for the second annual VEST Hackathon for redesigning the porta-potty (figure 2 and 3). This post reached 45 accounts, 7 likes, 0 comments, and 1 share. Of the accounts that saw the post 45 out of the 45 views were from current followers. This post was also shared on the story feature of the account with an easy access link to click which redirected the view to a link to sign up to attend the event. This story was seen by 52 views and only 4 of those viewers clicked the link.
Figure 2: The 6th and final post was an advertisement for the second annual VEST Hackathon for redesigning the porta potty.

Figure 3: The second picture in the 6th post which provided QR codes for registering to attend the event as well as a code for a survey about personal experiences with porta potties.

After reviewing the analytics to see why this post received the least interactions in comparison to the first post it was found that there was zero interaction with the hashtags which were in the caption of the post. The first post which received the most interaction had 31 impressions from the hashtags. Instagram recommends that you use between 3-5 hashtags that relate to your topic of discussion to help improve the reach of a given post (Instagram, 2021). The first post had hashtags which related more so to women in construction such as #WIC #empoweredwomenempowerwomen and #PPE.
whereas the last post had broader hashtags like #safety and #calpoly. Instagram recommends that the hashtags are a mix of niche and broad terms to help expand the interaction while relating to the content. We believe that having hashtags that relate to women in the construction industry helped to pull in more women which is the targeted market for this campaign. In the future if the posts continue, using a uniform collection of hashtags would help to ensure that those who view the hashtags are seeing all the posts for the account. This would help to increase exposure and to draw in more viewers. Using hashtags that are broader would help to gain followers and viewers who would otherwise not find this type of content.

Figure 4: The second post on the account describing data collected from Liz Galvez’s Survey in 2021

Figure 5: Second photo in post 2 displaying fit disparities between men and women with their current safety vest options
Figure 6: Third post on the account which advertised that Cal Poly CM will be purchasing women fit safety vests for all female identifying students enrolled.

Figure 7: The fourth post which shows quotes from current students on what a properly fitting safety vests means to them.

LACK OF FIT
WAS CONNECTED TO:

CONFIDENCE
- Men are 6.8 times more likely to feel confident in their vest than women.
- Women are nearly 3 times more likely to feel self-conscious in their safety vest than men.

SAFETY
- Men are 1.6 times more likely than women to agree that their vest does not risk their personal safety.

WHAT DOES SAFETY FITS MEAN TO YOU?

“Having a vest that is designed for my body is empowering! This shows me there is real progress happening in the industry.”

-Jacqueline Badol

“Having a vest that fits me correctly means that I can be safe and confident on my next job site!”

-Anna Knutson
The social media awareness campaign Safety First Means Safety successfully increased awareness about the importance of size-inclusive personal protective equipment (PPE) for women in the construction industry. The campaign utilized Instagram as a platform for dialogue as well as highlighted the need for properly fitting PPE to ensure the safety and confidence of women in the workplace. This campaign created a positive environment to share the success of various other student senior projects that relate to the topic of inclusion in the construction industry.

Through the creation of an Instagram account @safetyfits_CP and the development of six posts addressing various aspects of women's PPE, the campaign attracted followers and generated interactions. The initial post, introducing the campaign and its goals, received the most interaction, reaching a wide audience and attracting new followers. However, the post advertising the second annual VEST Hackathon received the least interaction, possibly due to the use of less targeted hashtags.

Overall, the campaign successfully increased awareness by gaining 86 followers and received impressions from 280 accounts, fostering discussion and informing women about existing and potential solutions for inclusive PPE. The campaign demonstrated the power of social media as a tool for creating awareness and promoting change within the construction industry. It showcased how social media platforms can bring together diverse groups of people, build social capital, and shape discourse on important issues.

Moving forward, it is important to sustain the campaign's posting activities and refine the marketing strategy to expand its reach and impact. This could include using a uniform collection of hashtags that cater to a broader audience while still addressing the specific needs of women in construction. By continuing to raise awareness and promote dialogue, the campaign can contribute to a more equitable...
work environment, where women have access to properly fitting PPE that enhances their safety, well-being, and overall success in the industry. Women deserve to have properly fitting PPE and various options to help them be safe and feel supported while working.

References


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