

Cues to Action as Motivators to Increase PPE Compliance Among Wastewater Workers

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INTRODUCTION

Wastewater workers are exposed to several occupational hazards which include: physical (i.e., excessive noise levels, repetitive movements), chemical (i.e., exposure to sodium bisulfite, chlorine), and biological hazards (i.e., Bloodborne pathogens). Long-term exposures to these hazards put wastewater workers at a higher risk of contracting an occupational illness through a viral infection as well as being at a higher risk of developing cancer. To protect wastewater workers from these occupational hazards, compliance with personal protective equipment (PPE) guidelines is very imperative. Despite its importance to reduce wastewater workers from occupational hazards, oftentimes, wastewater workers may be reluctant to wear PPE.



METHODS

Recruitment

- In 2018, a sample of wastewater workers was acquired through internet search and contact with the facilities managers via email or telephone.

Administering Questionnaire

- A 51-item self-administered questionnaire assessed wastewater workers' practices and beliefs on wearing PPE.
- Total participants, (n=272).
- For participants in GA, the questionnaire was administered in person, and for areas outside of GA, the survey was administered through SurveyMonkey.

Questionnaire

- The questionnaire asked questions in 4 sections which included:
 - Knowledge of occupational exposures and PPE at their facilities (Section 1)
 - HBM constructs on wearing PPE and contracting an occupational illness (Section 2)
 - management's decisions on enforcing PPE (Section 3), and
 - demographics (Section 4).

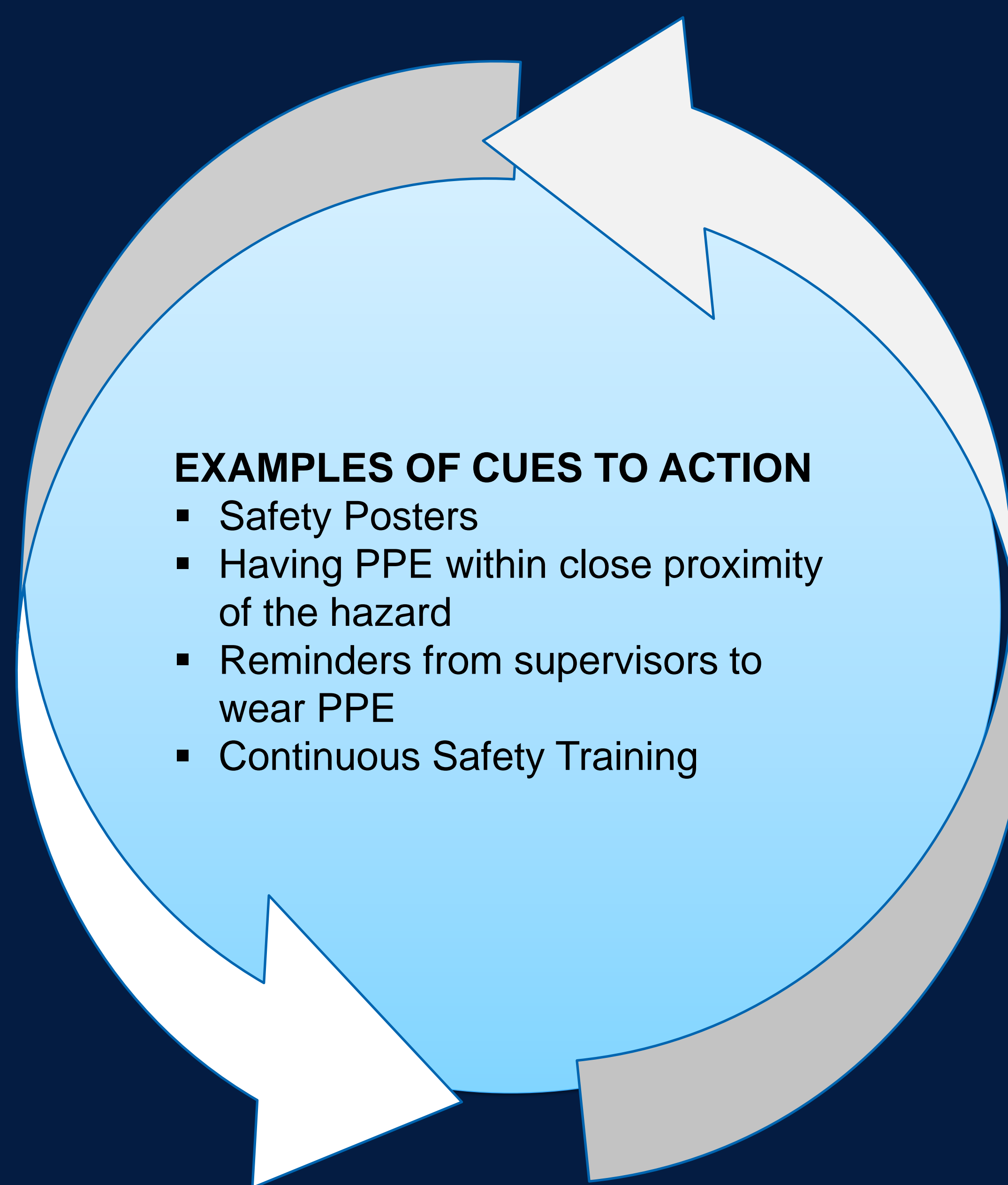
STATISTICAL ANALYSIS

ANALYSIS

- The Statistical Analysis System (SAS), version 9.414, was used to analyze all data.
- A multiple linear regression model was constructed to examine cues to action as predictors to increase PPE compliance through PROC SURVEYREG.
- P-values < 0.05 were considered as statistically significant.

VARIABLES

- The dependent variable is PPE compliance and the independent variables (predictors of PPE compliance) are the items from the cues to action section of the questionnaire.



EXAMPLES OF CUES TO ACTION

- Safety Posters
- Having PPE within close proximity of the hazard
- Reminders from supervisors to wear PPE
- Continuous Safety Training

RESULTS

We discovered that 5 out of 9 items were significantly associated with PPE compliance:

- A reminder from the supervisor every day about wearing PPE
- A supervisor checking on the employee to ensure they are wearing PPE;
- The supervisor setting the example by wearing PPE;
- Posters serving as reminders to wear PPE; and
- Seeing others wearing PPE.

CONCLUSIONS

Considering the findings from this research, behavior change interventions should focus on determining the effect that safety posters throughout the facility, co-workers wearing PPE, and supervisors exemplifying the importance of wearing PPE, will encourage wastewater workers to wear PPE.

Regarding safety trainings, more engaging methods should be utilized, by emphasizing the importance of cues to action to address preventative measures and addressing the risk of contracting an occupational illness if wastewater workers are noncompliant with PPE regulations.

ACKNOWLEDGMENTS

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BE SAFE



DON'T FORGET TO WEAR YOUR

PERSONAL PROTECTIVE EQUIPMENT

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