

Abstract #: 311

Presented by: Nycole García-Román, MS, Graduate Student

OSHA's Beryllium OEL: Inadequacy and Urgent Need for a New Standard, The Case of Recycling Operations and Dental Technicians

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Keywords: OSHA, beryllium, recycling, dental technicians

Objective: Beryllium is a metal that is found in nature. Because of its hardness, high melting point and lightweight it is used mostly for military applications, but it's also commonly used in electronics, aircrafts, atomic energy applications, sporting goods, dental prosthetics, auto parts, x-ray equipment, ceramic manufacturing, alloys and other consumer products. For some of these applications there is no substitute for beryllium. This metal is extremely toxic, especially by inhalation. Evidence suggests that the current OSHA guideline is not protective enough for workers exposed to this metal, which are susceptible to developing chronic beryllium disease (CBD) and beryllium sensitization (BeS).

Methods: Critical literature review

Results: In Puerto Rico, although there are no beryllium processing plants, it represents an occupational risk in electronics recycling plants and in the dental prosthetics industry. Social and occupational determinants such as the small size of organizations at risk, lack of awareness to risk factors due to the lack of education and information available to workers are evident in the meta analysis performed of the literature.

Conclusion: Many of these workers are exposed and under risk, due to ineffective regulations to protect them.

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Presented by: Mike Harari, BS, Graduate Student

Justice, Strain, and Work Family Conflict: The Role of Distributive Justice as an Organizational Stressor

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Keywords: Distributive Justice, Work to family conflict, Psychological Strain.

Objective: Contemporary occupational health psychology research has begun reexamining the role of distributive justice, conceptualizing it as an organizational stressor rather than a mediator in the procedural justice-strain relationship. In this study, we build on these findings by examining distributive justice's relationship with psychological strain and work to family conflict. We hypothesized a mediation model whereby distributive (in)justice influences work to family conflict through psychological strain.

Methods: Data was collected from the Professional Worker Career Experience Survey (PWCES).

Results: Using the Hayes & Preacher (2011) mediation technique to test our model, we assigned distributive justice as the IV, Work family conflict as the DV, and psychological strain as the mediating variable. Our bootstrapped mediation model ($F[6,544]=12.8, p<.05$) accounted for 12% of the variance ($R^2=.12$) and provided support for our hypotheses. We observed a significant main effect of distributive justice on psychological strain ($\beta = -0.05, p < .05$) and work-family conflict ($\beta = 0.36, p < .05$), strain on work-family conflict ($\beta = 2.8, p < .05$), and an indirect effect of distributive justice on work-family conflict through psychological strain ($IE = -.15 SE = .05 p <.05$ (99% CI: L= -0.27; U=-0.06). These results support our proposed model.

Conclusion: The results of this study support our hypothesis that distributive justice is an organizational stressor, influencing work to family conflict through strain. This study adds to the literature by demonstrating the direct and indirect effects of distributive justice on negative outcomes and helps to further solidify distributive justice as a meaningful variable in the study of work stress.



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