From the classroom to the field: Improving workplace climate in the geosciences through bystander intervention education

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Context

• Women make up 20% of geoscience faculty; of these 5% are women of color (NSF 2017) and in 2016, only 6% of PhDs were awarded to students of color (Bernard and Cooperdock 2018).
• Across disciplines, 62% of undergraduate women and 50% of women faculty experience sexual harassment (2015 AAU Survey).
• 64% of field survey respondents experienced sexual harassment and 21% sexual assault; women were more likely to experience harassment from supervisors than did men (Clancy et al. 2014).

An Intersectional Approach is Critical: Women of color face greater risks of gendered and racial harassment (Clancy et al., 2017)

<table>
<thead>
<tr>
<th>Women of color</th>
<th>White women</th>
<th>Men</th>
</tr>
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<tbody>
<tr>
<td>Feel unsafe at work</td>
<td>Due to gender 40%; Due to race 28%</td>
<td>Due to gender 30%</td>
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<tr>
<td>Reported skipping professional events because they felt unsafe</td>
<td>18%</td>
<td>12%</td>
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A Multi-level Approach to Cultural Change

Individual
• Raise awareness and instill sense of responsibility.
• Empower with skills for responding to incidents and supporting community.

Professional Societies & Funding Agencies
• Codify harassment, bullying and discrimination as research misconduct.
• Enforce policies to ensure safe environments.
• Require accountability from institutions.
• Provide more independent trainee funding.

Academic Institutions & Departments
• Signal no-tolerance for harassment from leadership.
• Safeguard against abuses of power.
• Disincentivize unethical behavior.
• Improve representation and build inclusive practices.

Field Research Considerations
• Expand safety plans to include harassment, bullying, discrimination.
• Safeguard against power dynamics.
• Establish clear code of conduct and reporting processes.
• Build an exit plan (but not automatically for person targeted by behavior).

Intervention

NSF ADVANCEGeo Partnership

Project Goals
1. Collect data on workplace experiences in the geosciences.
2. Develop and test bystander intervention training with discipline-specific scenarios that incorporate intersectionality.
3. Develop teaching modules that identify harassment as research misconduct.
4. Develop a sustainable model that can be transferred to other disciplines in partnership with professional societies.

Major Activities
• Reviewed 14 existing training programs.
• Developed workshops that include active learning, bystander intervention training, discipline-specific content and examples.
• Led > 60 workshops and presentations for local and international audiences: campus department members, administrators, heads and chairs, conference attendees, alumni.
• Built relationships with Title IX offices and other campus programs.
• Generated online resources website on relevant research and tested strategies to respond to harassment, bullying and discrimination in academia.
• Expanded to other disciplines: ecology, animal behavior, evolutionary biology, neuroscience, sociology, psychology, chemistry.

Evaluation Results

Workshop Evaluation Methods:
• The Kirkpatrick Model Levels 1-3
• Retrospective pre/post-test to measure learning outcomes

Level 1: Reaction & Satisfaction
• 96% would recommend the workshop (n=443).
• 66% of participants rate the quality of the workshop as excellent; 32% rate the quality of the workshop as good.
• 56% of participants said the scenarios are very relevant to experiences in their discipline; 33% said the scenarios were somewhat relevant to their discipline.

Level 2: Learning Outcomes
• Changes in level of knowledge about key learning outcomes have increased significantly.
• Participants enter the workshop with some knowledge about the prevalence of harassment and less knowledge about how to address harassment at individual, professional, and institutional levels.
• Participants report the greatest gains in learning about strategies for individuals to address harassment.

Level 3: Intention to Change Behavior
• 92% of participants plan to use the bystander intervention strategies presented in the workshop.

Next Steps
• Train the trainers program for workshop dissemination.
• Follow-up evaluation with workshop participants (Level 4).
• Implement workplace climate survey of professional society members.
• Expand to other disciplines.

Resources:
• American Geophysical Union (AGU) stopharassment.agu.org
• Clancy et al. (2014) Survey of Academic Field Experiences (SAFE): Trainees Report Harassment and Assault. PLoS ONE 9(7); e102172.
• Kirkpatrick Model www.kirkpatrickpartners.com/Our-Philosophy/The-Kirkpatrick-Model
• SERC serc.carleton.edu/advancegeo