SELF-EFFICACY OF HISPANIC WOMEN IN STEMM: A MIXED STUDY

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OBJECTIVES/GOALS: Previous literature has suggested that the lack of participation of minorities and women in the science field affects research centers' quality and competitiveness. This study assessed perceived self-efficacy, obstacles and factors that influenced the development of Hispanic women in a STEMM career. METHODS/STUDY POPULATION: This project followed a mixed-method approach with a convergent design. It included two simultaneous phases: an electronic survey as the quantitative phase and semi-structured interviews as the qualitative phase. Data was collected from an academic-research institution in Puerto Rico. A total of 71 questionnaires were collected applying the Baessler & Schwarzer General Self-efficacy Scale. Five women were interviewed using a semi-structure questionnaire. These women hold a tenure-track faculty position, have held a leadership position, had more than ten publications in peer-reviewed journals, and have received grants for research projects. The data was analyzed by triangulation. RESULTS/ANTICIPATED RESULTS: The General Self-efficacy scale sum scores ranged from 26 to 40 and a mean score of 34.25 (SD=3.79). Items where all answered the higher score stated, 'Thanks to my qualities and resources I can overcome unforeseen situations' and 'I can solve most problems if I put in the necessary effort.' Age was the only variable showing statistically significant relationship with general self-efficacy. The most relevant factor facilitating the development in STEMM fields' careers was the family support. Other contributing factors were the opportunities of employment, positions, professional development, financial status, early experiences during middle and high school, and good mentors, among others. DISCUSSION/SIGNIFICANCE: Results identified some contributing factors and barriers for Hispanic women's career development in STEMM. Strategies must be implemented as early as middle school for girls showing interest in this field and should include administrative resources to support the career development of women.

Shut Up & Write! to Build Writing Self-Efficacy and Self-Regulation in Early-Career Researchers

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OBJECTIVES/GOALS: Writing self-efficacy & self-regulation are tied to publication & grant submission" writers high in these traits are more productive. We investigated if participating in Shut Up & Write! would produce statistically significant gains in self-efficacy & self-regulation when comparing pre/post surveys. METHODS/STUDY POPULATION: 47 US med students, TL1/KL2, & early-career faculty expressed interest in participating. We conducted a 12-week, 1 hr/week Shut Up & Write!-style (SUAW) activity, held on Zoom, and measured the effect using a pre-post survey adapted from the Writer Self-Perception Scale. Matched pairs t-tests (I^2=0.05) to test for significant differences between pre- and post-test means were conducted on 3 subscales. The 3 subscales reflected writing attitudes (self-efficacy), writing strategies (self-regulation), and avoiding writing distractions (self-regulation). Subscales showed acceptable internal consistency with Cronbach's alphas of 0.80, 0.71, and 0.72. RESULTS/ANTICIPATED RESULTS: 24/37 (65%) completed pre-post surveys. 81% presented as female. 60% were NIH-defined URB and/or were from MSIs. 60% previously participated in an activity similar to SUAW. Sum scale statistics for those who previously participated were significant for the self-efficacy subscale (p=0.020) and writing strategies subscale (p=0.041). Sum scale statistics for those who had not previously participated were significant for the writing strategies subscale (p=0.002). We saw no difference in the avoiding writing distractions subscale. 80% were very satisfied/satisfied with SUAW (I really loved these sessions" they helped me to identify a writing goal that could actually be accomplished in an hour.) DISCUSSION/SIGNIFICANCE: We found significant differences in self-efficacy & self-regulation, building upon findings from a 2021 pilot, and providing evidence that regular participation in an activity like SUAW produces increased self-efficacy and self-regulation and may increase manuscript and grant-writing productivity

Stay Interviews: Guiding Meaningful Conversations for Retention of High-Quality CRPs

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OBJECTIVES/GOALS: Clinical Research Professional (CRP) shortages and high turnover rates directly impact the conduct of studies. A strategy for improving CRP retention is using Stay Interviews (SI), which are intentional exchanges between CRPs and leadership to enhance transparency and trust. Importantly, SIs are entirely separate from performance evaluations. METHODS/STUDY POPULATION: Representatives from seven academic medical centers formed a collaborative workgroup (WG) as part of the Association for Clinical and Translational Science (ACTS) Clinical Research Professionals Taskforce (CRPT) Special Interest Group (SIG). The purpose of this workgroup was to develop a Stay Interview (SI) toolkit that will empower leadership to retain high quality staff by engaging employees in open and responsive conversations about motivations to stay in their current roles. Tools previously used by collaborating institutions were evaluated and aligned to establish a sharable guide for SI best practices. Training resources to support leaders in effectively using SI tools were also developed to accompany the toolkit. RESULTS/ANTICIPATED RESULTS: Discussions of current tool use among group members highlighted 2 categorical use cases: continuous integration to promote workforce engagement and retention; and targeted use to address acute workforce challenges. The WG identified the need for a standardized conversation guide as well as leadership tools to support effective use of the guide. From the examples collated, the group crafted a 14