How a 3-tiered Intervention Impacted Academic Productivity of Women Medical Faculty
Results from NIH-TAC (Transforming Academic Culture) Randomized Trial

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RESULTS

Substantial improvements occurred in academic productivity over 3-year period.
Total peer-reviewed papers accepted for publication increased by 48%.
50% of faculty demonstrated improvement in grant status.

Academic Productivity Outcomes: Intervention vs Control

- **Improvement in Academic Productivity for all Faculty Participants**
  - Total** publications vs intervention
  - Peer reviewed vs intervention

- **Risk Ratios for 3-year Grant Improvement Stratified by Years in Rank**
  - Ratio for Assistant Professor at Baseline
  - Risk Ratio
  - p-value

- **Ratio First Author Publications Stratified by Degree**
  - Intervention vs Control
  - PhD only and MD plus Master’s
  - MD only
  - MD plus additional Master’s or PhD

- **Risk Ratios of Publications in High** vs **Low Levels of Participation**
  - Year
  - Total**
  - First author**
  - Peer reviewed

- **Summary**
  - Need more follow-up time
  - Only had two months!

CONCLUSIONS

- Too much contamination and co-intervention.
  - High visibility trial with many university and medical school strategic plans.
  - Simultaneous other professional development activities (65% of control group).

- Intervention was limited by:
  - Assistant professors already maximally incentivized to produce papers and grants.
  - No release time for faculty participants.
  - May need to measure other outcomes.

- Need more follow-up time →
  - Only had two months!

- Within the intervention group, women faculty who participated more frequently had significantly greater numbers of first author and peer reviewed publications by 2012 compared to those who participated less.

- Substantial intervention/control differences were found in grant status based on years in rank.

- In the subgroup of women assistant professors with ≥ 6 years in rank, those in the intervention were nearly 4X more likely than those in the control group to improve their grant status.

- In groups based on types of degrees, intervention faculty with MDs had significantly more first author publications than control faculty with PhDs.

- In subgroups based on types of degrees, intervention faculty with PhDs had significantly more first author publications than control faculty with MDs.

Faculty Participant* Characteristics

- **Faculty Participant* Characteristics**
  - Gender
  - Race/Ethnicity
  - Academic Rank
  - Children ever born
  - Children living at home
  - Marital Status
  - Employment Status
  - Academic Workload
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**Comments:**

- Working nearly 60 hours per week.
- 85% had a partner or were married.
- 75% had children living at home.

- Training needed in academic productivity over 3-year period.
- Total peer-reviewed papers accepted for publication increased by 48%.
- 50% of faculty demonstrated improvement in grant status.

- **Risk Ratios for 3-year Grant Improvement Stratified by Years in Rank**
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**Summary**

1. NIH-TAC Trial demonstrated substantial improvements in academic productivity in both intervention and control groups.
2. A standardized intervention across all tracks and departments may not benefit all assistant professors equally.
3. By identifying specific subgroups, we can develop tailored interventions that will make a difference.
4. Only through rigorous research design and RCTs will best practices be identified that truly advance women – and all faculty.