

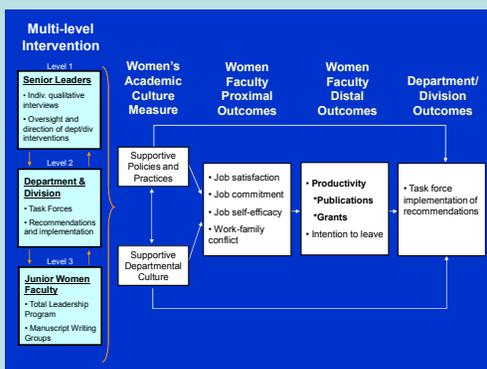
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TAC-Trial Objectives

For junior women faculty at the University of Pennsylvania School of Medicine, we aim to improve:

- Academic Productivity
- Work Environment
- Job Satisfaction
- Work-Family Balance

Overview of the TAC-Trial



1. Development of *Women's Academic Culture Measure*
2. Cluster-randomized intervention trial
 - Eligibility requirements
 - departments/divisions with at least 3 junior women faculty (N=27)
 - Intervention unit: SOM departments/divisions
 - 27 dept chairs/division chiefs consented (13 intervention, 14 control)
 - 134 women faculty consented (62 intervention, 72 control)
3. Multi-level initiatives
 - a. Senior leaders (individual interviews, implement recommendations)
 - b. Dept/Div faculty (task forces)
 - c. Junior women faculty (Total Leadership Program & Manuscript Writing Group)

Hypothesis of Junior Women Faculty Study Participants at Baseline

Increased levels of work-family conflict would be associated with factors related to attrition.

Attrition indicators include:

- stress
- job dissatisfaction
- frequent thoughts of quitting
- intention to look for a new job

Methods

Junior women faculty study participants completed a 132-item baseline survey, including two standardized measures of work-family conflict:

Time-based

80. My work keeps me from my family activities more than I would like.

Strongly Disagree

Disagree

Neither Agree nor Disagree

Agree

Strongly Agree

81. The time I must devote to my job keeps me from participating equally in household responsibilities and activities.

Strongly Disagree

Disagree

Neither Agree nor Disagree

Agree

Strongly Agree

82. I have to skip family activities due to the amount of time I must spend on work responsibilities.

Strongly Disagree

Disagree

Neither Agree nor Disagree

Agree

Strongly Agree

Strain-based

83. When I get home from work, I am often too tired to participate in family activities/responsibilities.

Strongly Disagree

Disagree

Neither Agree nor Disagree

Agree

Strongly Agree

84. I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.

Strongly Disagree

Disagree

Neither Agree nor Disagree

Agree

Strongly Agree

85. Due to all the pressures at work, sometimes when I get home I am too exhausted to do the things I enjoy.

Strongly Disagree

Disagree

Neither Agree nor Disagree

Agree

Strongly Agree

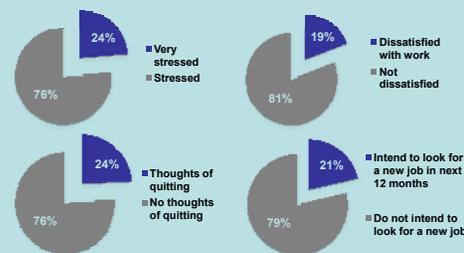
Likert scale items for the attrition indicators (stress, work dissatisfaction, thoughts of quitting and intention to look for a new job) were converted to dichotomous variables for group comparisons.

T-tests were used to examine levels of work family conflict by the attrition levels.

Multivariable logistic regression models were used to evaluate factors associated with thoughts of quitting and work dissatisfaction. Models controlled for:

1. Appointment track (clinician educator, tenure, or research)
2. Number of children living at home (0, 1, 2, 3+)
3. Number of hours worked per week (<50, 50-59, 60-69, ≥70)

Results



Time-based work-family conflict is associated with

- Very high stress $p = 0.016$
- Work dissatisfaction $p = 0.034$
- Frequent thoughts of quitting $p = 0.008$

Strain-based work-family conflict is associated with

- Very high stress $p = 0.005$
- Work dissatisfaction $p = 0.043$
- Frequent thoughts of quitting $p = 0.002$
- Intend to look for a new job within 12 months $p = 0.033$

Factors associated with frequent thoughts of quitting

Variable	Odds Ratio	p-value	95% CI
Stress (Likert)	3.43 *	0.001	1.61, 7.32
Feelings of not belonging	3.83 *	0.024	1.19, 12.28
Strain-based work-family conflict	1.90 *	0.029	1.07, 3.39
Research track	0.04 *	0.012	0.004, 0.51
Tenure track	0.39	0.30	0.07, 2.27
1 child at home	0.12 *	0.038	0.02, 0.88
2 children at home	0.82	0.77	0.23, 2.96
3+ children at home	1.18	0.84	0.23, 5.93
50-59 work hours per week	0.23 *	0.033	0.06, 0.89
60-69 work hours per week	0.14 *	0.036	0.02, 0.88
≥70 work hours per week	0.47	0.42	0.07, 2.97

* = statistically significant $p < 0.05$

After adjusting for track, number of children at home, and hours worked per week...

- women who reported very high stress were nearly **3.5 times more likely** to have frequent thoughts about quitting
- women who feel they do not belong in their department/division were almost **four times more likely**
- women with higher strain-based work-family conflict about **twice as likely**

Hypothesized factors evaluated and found to be non-significant or non-influential to the model:

- time-based work family conflict
- age
- work self-efficacy
- number of years as Assistant Professor
- dissatisfaction with mentorship

Results continued

Factors associated with work dissatisfaction

Variable	Odds Ratio	p-value	95% CI
Stress (Likert)	2.01 *	0.03	1.07, 3.76
Work self-efficacy	3.18 *	0.004	1.44, 7.05
Research track	0.43	0.36	0.07, 2.58
Tenure track	0.19	0.19	0.02, 2.28
1 child at home	0.22	0.09	0.04, 1.25
2 children at home	0.66	0.55	0.17, 2.52
3+ children at home	0.59	0.55	0.11, 3.27
50-59 work hours per week	0.89	0.88	0.20, 3.93
60-69 work hours per week	1.68	0.56	0.30, 9.35
≥70 work hours per week	1.71	0.89	0.14, 10.05

* = statistically significant $p < 0.05$

After adjusting for track, number of children at home, and hours worked per week...

- women who reported very high stress were **twice as likely** to report work dissatisfaction
- women with worse work self-efficacy were over **3 times more likely** to report work dissatisfaction

Hypothesized factors evaluated and found to be non-significant or non-influential to the model:

- age
- time-based and strain-based work-family conflict
- number of years as Assistant Professor
- feelings of not belonging
- dissatisfaction with mentorship

Conclusions

-In junior women faculty study participants, self-reported experience of work family conflict is associated with factors that have been observed to predict attrition in academia

-High levels of stress, feelings of not belonging in one's academic department or division, and poor work self efficacy play a significant role in having frequent thoughts of quitting and being dissatisfied at work

-Interventions such as the NIH TAC-Trial, aimed at improving the culture for work-family balance may better foster the advancement of women's careers in academic medicine

