



Leading a Lab

Lessons from the P.I. Program

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Who Does the P.I. Program Serve?

Researchers who...

had research compliance or integrity violations in lab
and
institutions choose to retain

DuBois et al, "Misconduct: Lessons from Researcher Rehab," **Nature**, 8 June 2016

P.I. Program Participants

- 2013 – 2020 (*Workshop*)
 - 90 researchers
- 2021 – 2023 (*Coaching Program*)
 - 60 researchers
- Institutions referring researchers
 - 70 institutions
 - 18 have referred 3 – 8 investigators

ILLUSTRATION BY DAVID PARKINS



Lessons from researcher rehab

Common compliance situations can get good researchers into trouble, warn **James M. DuBois** and colleagues.

Client Demographics

- Sex: 72% male, 28% female
- Nation of Birth: 65% born abroad, 35% in US
- Academic Rank: 42% full professor; 58% early/mid

Basic Premises of the P.I. Program

Good researchers may find themselves in trouble with compliance

It is possible to avoid the same problems in the future
(*reactive and proactive*)

Most Researchers Could Find Themselves in Trouble

with Compliance or Research Integrity if Not Careful.

THE P.I. PROGRAM helps researchers become more effective professionals. Using a career-coaching model, the program offers personalized assessments, a group workshop, and post-workshop coaching to help researchers operate professionally in today's complex environments.

The program, directed by Dr. James DuBois, serves researchers who have experienced professional difficulties by falling into common traps such as:

- Becoming overextended
- Being unsure of rules and regulations
- Not prioritizing compliance
- Poor communication with research staff or compliance officers

The P.I. Program teaches researchers new, effective decision-making strategies and how to implement best practices in lab management that can help avoid a host of problems.

To register, please contact the program manager at integrity@wustl.edu or 314-747-4220.

P.I. PROGRAM

Professionalism & Integrity in Research



Structure of the Coaching Program (~ 8 weeks)

- Pre-assessments and interviews
- Homework assignments
- Coaching calls (1:1) via Zoom
- Professional Development Plan (PDP)
- Post-assessment and follow up surveys

Evidence Base for the PI Program

- Systematic reviews
- Study of 140 cases
- Exemplar Study
- 150 PI Program clients
- Surveys of >1,500 researchers on...
 - Attitudes & values
 - Decision-making
 - Impact of leadership practices
 - Culture

Search PubMed for papers by James DuBois, Alison Antes, and Tristan McIntosh

How Do Good Researchers Experience Problems?

- Social Expectations and Environment
- Thought patterns / Priorities
- Decision-Making Problems
- Work Habits and Relationships (L&M)



Expectations: What We Want in Researchers

1a. Be creative and innovative like an artist

1b. But detail-oriented and disciplined like an accountant

2a. Be invested in discovery and translation like an entrepreneur

2b. But acknowledge the institution owns all data and IP



Expectations: What We Want in Researchers

3a. Be as productive as possible

3b. But not overly extended and dropping balls

4a. Delegate and be egalitarian in the lab

4b. But accept responsibility for all science, budget, and reports

Where things go wrong

WHY RESEARCHERS STUMBLED

Instructors on the Professionalism and Integrity Program assessed underlying causes (often more than one) for researchers' lapses.

Proximate cause	Ultimate cause of researcher lapse	% of participants
Lack of attention	Overextended, not detail-oriented or distracted by personal problems.	 72%
Unsure of rules	An increase in regulations since researcher began career, lack of mentoring or cultural differences.	 56%
Did not prioritize compliance	Failed to recognize seriousness of violations, biased thinking or cultural differences.	 56%
Relationship problems, political tensions	Communicated aggressively or worked with difficult personalities.	 36%
Staff lacked adequate training or integrity	Failed to provide adequate training, did not create culture of compliance in lab or had difficulty hiring individuals.	 28%
Poor communication	Failed to hold regular meetings with research team.	 26%

There is so much a researcher cannot (entirely) control

- Social expectations of researchers
- Availability of funding
- Effectiveness and collegiality of compliance programs
- Staff or trainee turnover and behavior

We focus on root causes, and things researchers can control

- Remove barriers/solve problems when you can
- Use evidence-informed coping strategies to deal with what you cannot change
- Identify assets and leverage them



Our Program Fosters

- Acceptance of compliance responsibilities (attitude change)
- SMART decision-making strategies
- Good leadership and management habits
- Good communication and people skills



Program Outcomes

We have demonstrated significant increases in ...

- professional decision-making scores
- positive attitudes toward compliance
- use of good leadership and management practices

DuBois JM, Chibnall JT, Tait R, Vander Wal JS. Academic Medicine. 2018, 93(4):586-592



Attitudes

- Accepting compliance as part of research
- Realizing front-end work will save time
- Being effective, rather than being “right”
- Being empowered and committed to growth



Decision-making challenges

- Uncertainty
- HALT (hungry, angry, lonely, tired)
- Self-serving biases
- Relationship pressures

SMART Decision Strategies

Seek help

Manage emotions

Anticipate consequences

Recognize rules and policies

Test assumptions

Strategies for Professional Decision Making: The **SMART** Approach

Strategy	Sample Reflection Questions
Seek Help	• Where might I seek additional information or an unbiased, objective opinion? • Would it help to involve a mediator or consultant? • Do I welcome correction or input from others, including subordinates?
Manage your Emotions	• What are my emotional reactions to this situation? Am I anxious, frustrated, or depressed? • How might my emotions influence my decision-making? • Would taking a "time out" or deep breath help?
Anticipate Consequences	• What are the likely short-term and long-term outcomes of various choices? • Who will be affected by my decisions and how? • How might this decision impact my career and me?
Recognize Rules and Context	• What are the causes of the problems in this situation? Which causes can I change? • What ethical principles, laws, or regulations apply in this situation? • Does anyone have the power to control outcomes? If so, who and how?
Test your Assumptions and Motives	• Am I making faulty assumptions about the causes of the situation, alternatives, or others' intentions? How can I find out? • What are my motives? Are they the same as the people I serve? • How will others view my choices?

NOTE: The strategies often overlap, e.g., testing assumptions is often a good way to manage emotions and it can lead to seeking help.
Want to be SMARTER? Add "Evaluate" outcomes of your actions, and "Revise" your approach based on outcomes.

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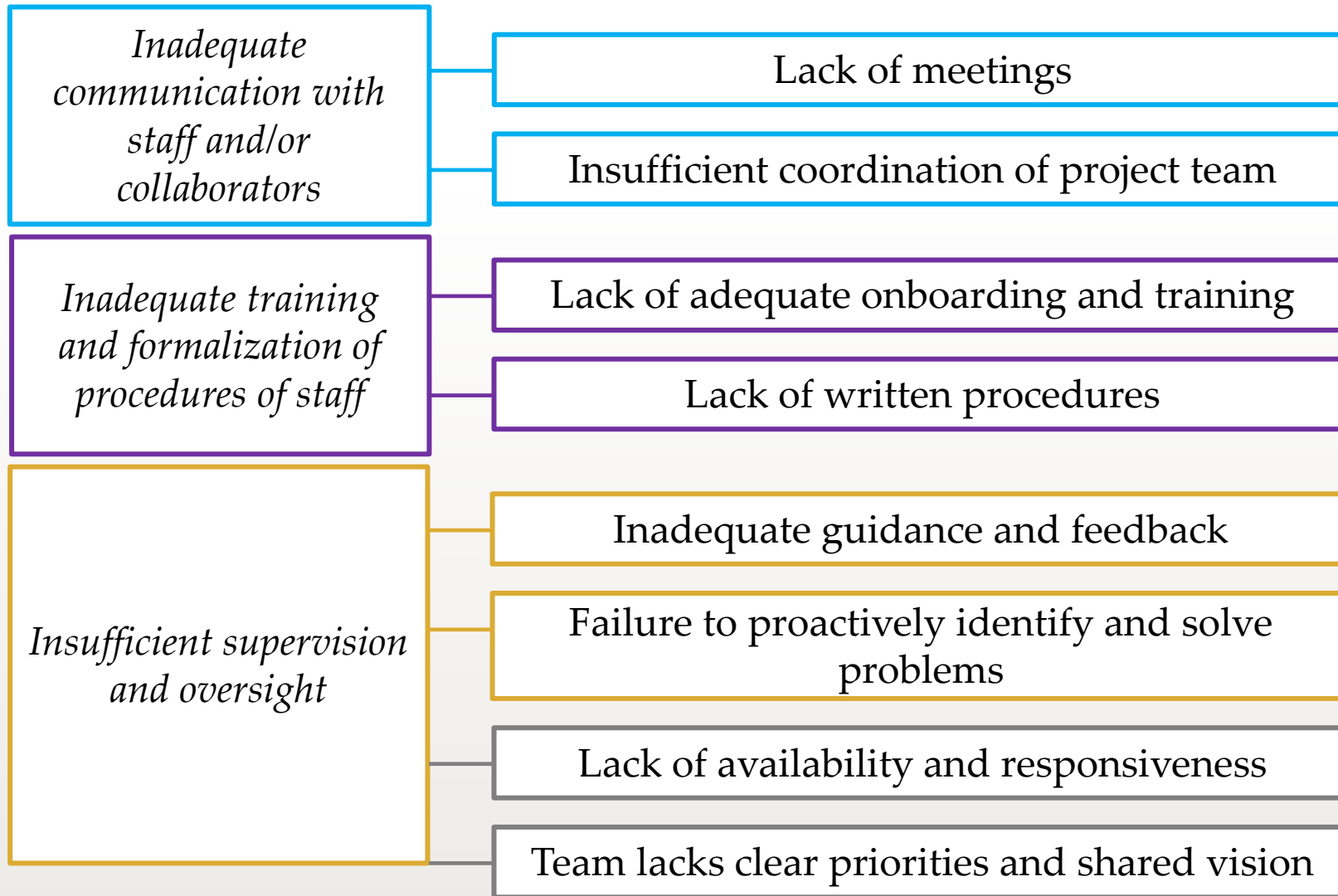
What are Leadership and Management?

Leadership and management are the social mechanisms and organizational processes by which people achieve success through collective effort.

Leadership = influencing people

Management = overseeing and coordinating work

Key L&M Obstacles to Rigor & Compliance





5 Essential L&M Practices

1. Hold effective meetings
2. Use SOPs or checklists
3. Ensure effective onboarding and training
4. Provide ongoing guidance and feedback
5. Create shared accountability for rigorous science and compliance

Good Professional Habits

Intentionally manage your time, energy, well-being, and professional effectiveness

Tips

1. Avoid becoming seriously overextended.
2. Manage stress daily.
3. Reflect on what is and is not working well, and experiment with new approaches.
4. Collaborate with people who complement your strengths.
5. Communicate assertively or non-violently



Develop a Realistic Professional Development Plan

- Sample activities
 - Writing a lab manual
 - Finding a mentor or coach
 - Creating new data storage protocols
 - Right sizing the lab or workloads

Summary: What our program fosters

Attitudes and Priorities	Practices	People Skills	Decision-Making
Compliance is part of job	Checklists, manuals	Communication	Seeking help
Be effective, not “right”	Meetings	Banking good will	Manage emotions
Empowered, growth mindset	Onboarding, training	Fostering relationships	Question assumptions

Final thought 1: Healing

- Being investigated is traumatizing
 - Integrity or competence is questioned
 - Serious consequences are threatened or experienced
 - Time lost
 - Secretiveness
 - imposed by institution, or self-imposed by shame



Healing

- We create a safe, confidential space
- We focus on behavior change, not character
- We listen
- We look back only to move forward positively

Final thought 2: The challenge of large-scale preventive education

- Motivation: Do I really need this?
 - Does it work to lecture a teenager about wisdom?
- Relationship: Do you know your RCR students well? Do they trust you?
 - Can you challenge their thought patterns?
 - Offer tailored recommendations?
 - Lead them to propose their own solutions?

Offshoot Programs

Prevention is difficult, but we are trying to apply what we are learning in ...

- On the Road
 - See PI Program Website
- COMPASS
 - Led by Alison Antes and Tristan McIntosh, researchercompass.org

Questions?





Connect with the P.I. Program

- Website: <http://integrityprogram.org>
- Email: Integrity@wustl.edu
- James DuBois: duboisjm@wustl.edu



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