

Improving the Quality of Publications in and advancing the Paradigms of Clinical and Social Pharmacy Practice Research: The Granada Statements

Shane P. Desselle, RPh, PhD, FAPhA
Associate Dean for Research & Prof Affairs
Professor & Chair, Touro Univ. California
Editor, *RSAP* & *ERCSP*



Scientific Paradigm

- Work from Kuhn, Biglan, Lodahl & Gordon
- The concept of intradisciplinary consensus
- Implications of paradigm/consensus (or lack, thereof)
 - Teaching
 - Research
 - Career outcomes



What is the best description of scientific paradigm?

- A. Science is never wrong
- B. Consensus among scholars in a discipline on what to teach and research, and how to do so
- C. A forecast predicting the advances in science that might be made in a particular discipline
- D. The envisioning of the need for entirely new methods to address problems in a particular discipline



Intradisciplinary Consensus

- A measure of a discipline's scholarly progress
- One of 3 broad dimensions describing differences among disciplines (pure-vs-applied and life-vs-nonlife)
- Implications for:
 - Scholarly productivity, types of scholarly communication, speech disfluency, teaching styles, teaching performance, departmental governance, outlook to the future, adjustment to new roles, salary & merit awards, stress, and job/career satisfaction

Clustering of Academic Task Areas into Three Dimensions

Task area	Hard		Soft	
	Nonlife system	Life system	Nonlife system	Life system
Pure	Astronomy Chemistry Geology Math Physics	Botany Entomology Microbiology Physiology Zoology	English German History Philosophy Russian Communications	Anthropology Political science Psychology Sociology
Applied	Ceramic Engineering Civil engineering Computer Science Mechanical Engineering	Agronomy Dairy Science Horticulture Agricultural Economics	Accounting Finance Economics	Educational administration and supervision Secondary and continuing education Special education Vocational and technical education



Intradisciplinary Consensus in Pharmacy

- Three dimensions: teaching, organizational government, graduate programming & research
- Very few differences among various disciplines, except for pharmacy practice
- Differences by type of institution, gender, and race/ethnicity of responding faculty
- Teaching and research priorities




The Case of Pharmacy

- Progress, yet . . .
 - We continuously reinvent the wheel
 - We don't accept 'truths'
 - We spend much effort re-establishing the literature
 - We derive new names/terms
 - We have an inferiority complex
 - We hurt ourselves



What is the best description of where pharmacy stands in achieving consensus?

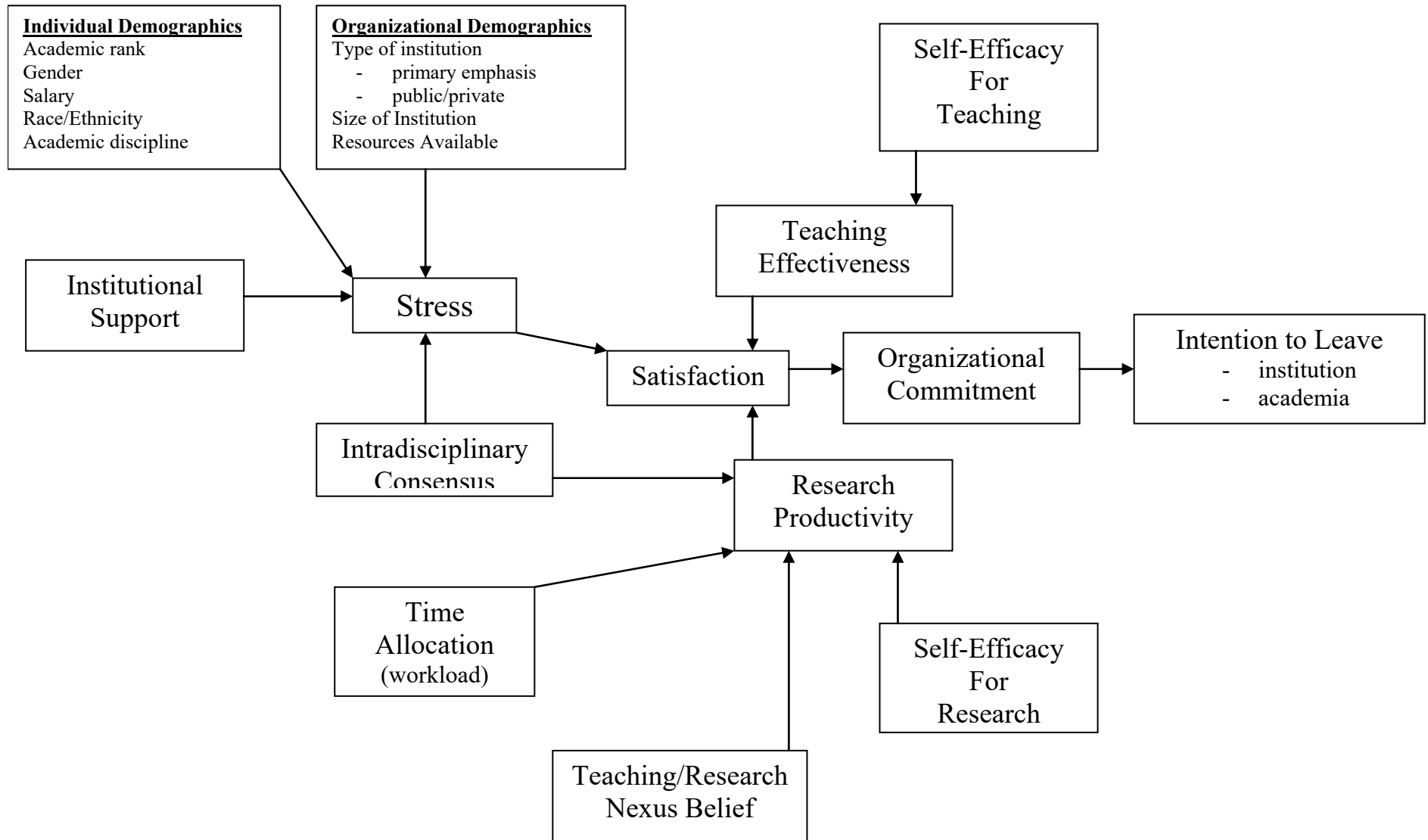
- a. All subdisciplines of pharmacy are on equal footing
- b. All pharmacy subdisciplines are on low-consensus disciplines
- c. Pharmacy practice and social pharmacy have made strides but keep re-inventing the wheel
- d. The social sciences in pharmacy are represented as having the highest pay and ability to publish



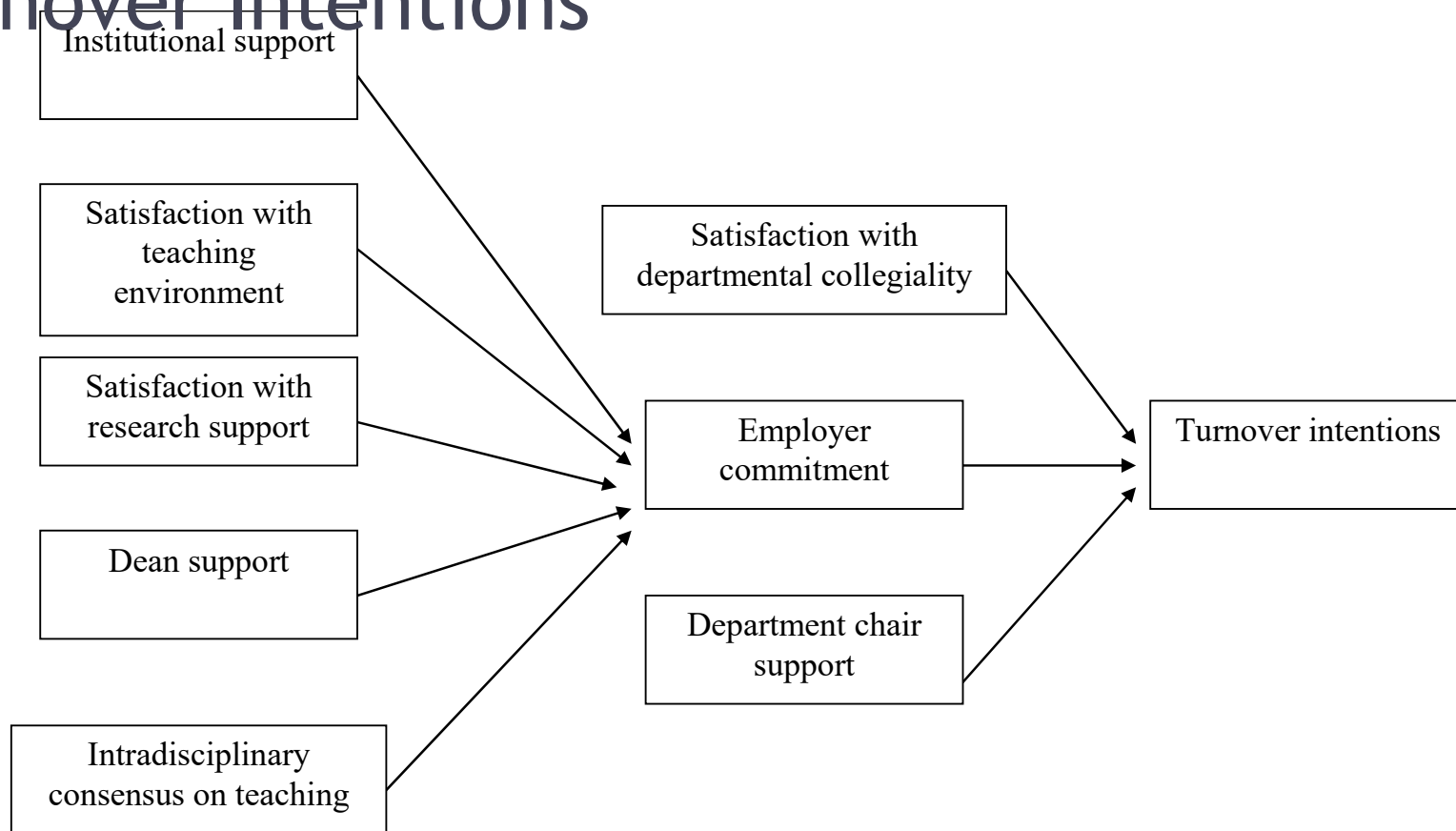
Study/Project Map (not a strict model, per se)

- Satisfaction construct
- Turnover intentions
- Research productivity
- Stress
- Support
- Intradisciplinary consensus

Pharmacy Faculty Quality of Work Life Model (hypothesized)



Resultant Model of Academician Job Turnover Intentions





Research Productivity Factors

- Time spent in research activities
- Academic rank
- Research self-efficacy
- Intradisciplinary consensus
- Academic discipline

Research Self-Efficacies

Item	Mean
Work with others in a research group	85.98
Discuss research ideas with colleagues	84.82
Deliver research findings at professional seminars/conferences	83.83
Prepare a manuscript for submission to a refereed journal	83.23
Utilize criticism from reviews of your research	83.15
Develop a logical rationale for your particular research idea	77.92
Generate researchable questions	76.71
Complete a significant project	76.49
Identify areas of needed research, based on the literature	76.39
Organize your proposed research ideas in writing	76.25
Attend to all relevant details of data collection	75.73
Train assistants to collect data	75.58
Supervise student researchers	75.43
Design a research project	74.63
Construct reliable data collection methods	74.37
Ensure validity in your data collection methods	69.41
Prepare a grant proposal	66.76
Choose appropriate data analysis strategies	59.87
Interpret and understand statistical output from appropriate software	58.66
Acquire extramural funding	57.57
Total Scale Mean	1492.59 / 2000

Teaching Self-Efficacies

Item	Mean
Provide an alternative explanation or example when students are confused	84.12
Respond to difficult questions from your students	81.85
Make time available to students outside of the classroom	81.61
Adjust your content to the proper level for students	79.58
Get students to believe they can do well in your course	79.55
Craft appropriate examination questions	79.09
Provide appropriate challenges for very capable students	77.88
Control or prevent disruptive behavior in the classroom	76.59
Gauge student comprehension of what you taught	75.10
Help your students value learning	74.96
Respond to defiant students outside of the classroom	74.59
Employ a variety of effective student learning assessment strategies	73.82
Adjust your teaching strategies to accommodate various student learning styles	73.44
Improve the understanding of a student who is failing	71.24
Foster student creativity	70.03
Motivate students who show low interest in your course	65.52
Total Scale Mean	1297.35 / 1700



Other Research

- Organizational culture
- Organizational citizenship
- Productivity
- Academic “stars” and “deadwood”
- Psychological contract breach
- Use of motivating language
- Mentoring and mentorship programs



Teaching Productivity

- Satisfaction with teaching environment
- Research self-efficacy



The Granada Group

- Aims to mitigate/address these issues
- Help authors/researchers, reviewers, journals, and our collective discipline
- Patterned loosely after similar efforts in nursing and medicine



The Conference

- 20 attendees from 10 journals
- Later joined by PEJ, & FIP
- 4 primary organizers (Desselle, Cardenas, Stewart, Llimos), each presenting 1-3 key topic areas for discussion
- Keynote from Intl J of Public Health



The Granada Group Members

- RSAP, ERCSP, IJCP, JoPPP, PEJ, EJHP, IJPP, Pharm Care Espana, Ars Pharmaceutica, Farmacia Hospitalaria, Revista Brasileira
- Canadian Pharmacists Journal
- Canadian Journal of Hospital Pharmacy
- Pharmacy Education
- Drug, Healthcare, and Patient Safety
- Journal of Pharmacy Practice and Research
- Farmaceuticos Comunitarios
- Currents in Pharmacy Teaching & Learning
- Drug Healthcare and Patient Safety



What best describes the Granada Group effort and its constituent members?

- a. They are mostly U.S.-based groups of scientific journals
- b. It is an attempt to improve the rigor and visibility of pharmacy practice and education research
- c. The group consists of journals mostly with no impact factor score
- d. The group's model is one of closed invitation that precludes new members























Improving the quality of publications in and advancing the paradigms of clinical and social pharmacy practice research: The Granada statements[☆]

Fernando Fernandez-Llimos^a, Shane Desselle^{b,*}, Derek Stewart^c, Victoria Garcia-Cardenas^d, Zaheer-Ud-Din Babar^e, Christine Bond^f, Ana Dago^g, Ramune Jacobsen^h, Lotte Stig Nørgaardⁱ, Carlo Polidori^j, Manuel Sanchez-Polo^k, Bernardo Santos-Ramos^l, Natalia Shcherbakova^m, Fernanda Toninⁿ

^a *Revista Brasileira de Farmácia Hospitalar e Serviços de Saúde, Professor, Laboratory of Pharmacology, Faculty of Pharmacy, University of Porto, Porto, Portugal*

^b *Research in Social and Administrative Pharmacy, Exploratory Research in Clinical and Social Pharmacy, Touro University California, Vallejo, CA, USA*

^c *International Journal of Clinical Pharmacy, Professor of Clinical Pharmacy and Practice, College of Pharmacy, QU Health, Qatar University, Doha, Qatar*

^d *Research in Social and Administrative Pharmacy, Senior Lecturer, University of Technology Sydney, Sydney, Australia*

^e *Journal of Pharmaceutical Policy and Practice, Department of Pharmacy, School of Applied Sciences, University of Huddersfield, Huddersfield, United Kingdom*

^f *International Journal of Pharmacy Practice, Institute of Applied Health Sciences, University of Aberdeen, Aberdeen, Scotland, United Kingdom*

^g *Pharmaceutical Care España, President, Pharmaceutical Care España Foundation, Barcelona, Spain*

^h *Exploratory Research in Clinical and Social Pharmacy, Associate Professor, Department of Pharmacy, University of Copenhagen, Denmark*

ⁱ *Research in Social and Administrative Pharmacy, Associate Professor at the Department of Pharmacy, University of Copenhagen, Copenhagen, Denmark*

^j *European Journal of Hospital Pharmacy, Associate Professor, Department of Experimental Medicine and Public Health, University of Camerino, Camerino, Italy*

^k *Ars Pharmaceutica, Professor, Faculty of Pharmacy, University of Granada, Granada, Spain*

^l *Farmacia Hospitalaria, Pharmacy, Hospital Universitario Virgen del Rocío, Associated researcher, Instituto de Biomedicina de Sevilla (IBIS), Sevilla, Spain*

^m *Research in Social and Administrative Pharmacy, Associate Professor, College of Pharmacy and Health Sciences, Western New England University, Springfield, MA, United States*

ⁿ *Researcher, Pharmacy Practice, Health & Technology Research Center (H&TRC), Escola Superior de Tecnologia da Saúde (ESTeSL), Instituto Politécnico de Lisboa, Lisbon, Portugal*

ABSTRACT

Pharmacy and pharmaceutical sciences embrace a series of different disciplines. Pharmacy practice has been defined as "the scientific discipline that studies the different aspects of the practice of pharmacy and its impact on health care systems, medicine use, and patient care". Thus, pharmacy practice studies embrace both clinical pharmacy and social pharmacy elements. Like any other scientific discipline, clinical and social pharmacy practice disseminates research findings using scientific journals. Clinical pharmacy and social pharmacy journal editors have a role in promoting the discipline by enhancing the quality of the articles published. As has occurred in other health care areas (i.e., medicine and nursing), a group of clinical and social pharmacy practice journal editors gathered in Granada, Spain to discuss how journals could contribute to strengthening pharmacy practice as a discipline. The result of that meeting was compiled in these Granada Statements, which comprise 18 recommendations gathered into six topics: the appropriate use of terminology, impactful abstracts, the required peer reviews, journal scattering, more effective and wiser use of journal and article performance metrics, and authors' selection of the most appropriate pharmacy practice journal to submit their work.



The Six Areas Targeted

- Appropriate use of terminology
- Impactful abstracts
- Required peer reviews
- Journal scattering
- Selecting the most appropriate journal to publish
- Using metrics wisely
- **Joint Description/Granada Group



Work to Be Done

- Terminology
- Work with Clarivate and Scopus
- Transfer agreements
- Teamwork
- Upcoming conferences
- Quick update



Which of the following is true?

- a. Medicine and nursing are two disciplines that are always re-naming the type of care they provide to patients
- b. There are ample MeSH terms that accurately describe the work of pharmacists
- c. The potential rise in pharmacy practice journals serves as a threat to medicine, nursing, and other health professions
- d. Scholars in pharmacy have not always submitted their “best work” within pharmacy journals



What Drives Citations in Our Journals?

- Analysis of nearly 900 articles published from 2014-2016 in RSAP, IJCP, IJPP
- Data coded independently by 3 researchers, with adjudication as needed
- Examined year of publication, country of origin, int'l collaboration, h index of lead author, number of authors, type of paper, methodological approach, subject matter, number of references cited, use of social media
 - Social media, Subject matter, Type of paper
- What's unimportant?
- What's deleterious?



What Does This Mean for Us?

- Choose the most appropriate journal (fit) for your work
- Select the methodology most appropriate to answer the study questions
- Come up with compelling study/research questions
- Shed the inferiority complex about pharmacy/quit investigating ourselves so much
- Use MeSH terms in your title and abstract
- Toot your horn and those of your colleagues
- Send us your best work
- Develop rapport with journals
- Make sure and detail the unique contribution of your work
- Look for willing and able collaborators
- Be comprehensive in your literature review and discussion



Let's Advance Our Scientific Paradigm

- Who doesn't want their work to be valued??



Thank you so much!!

- I don't like to end my presentation with a pithy quote from someone famous nor with some ostensibly humorous cartoon graphic in an attempt to make me look smarter or “deeper” than I really am.
- But I'd love your comments and questions!!!!