

# Best Practices for Embedding Implementation Science in DNP Projects: Lessons Learned from Two DNP Programs

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1

## Objectives:

1. Describe a retrospective review of DNP Projects from two universities to determine the inclusion of theories, frameworks, and models from Implementation Science.
2. Explore to what extent DNP programs are using Implementation Science language and processes in their DNP projects.

2



## **Implementation Science** (as defined by the NIH, 2015)

- the study of methods to promote the integration of research findings and evidence into healthcare policy and practice

3



## **Partnership of Two Schools: Focus on Implementation Science**

- Preliminary Work as partners
- Frequent discussions about:
  - Translational Science
  - Improvement Science
  - Implementation Science
  - Systems Science
  - ....terminology, meaning and reality....
- AdvISE Summit- University of Maryland  
Don Bergman- IHI- “de-jargonize all of this and focus on doing projects that make an impact.”

4

## Two Schools . . .

### Texas Woman's University

- Public University with three campuses: Denton, Dallas, Houston
- Post-MS DNP APRNs (Houston, Dallas campuses)
- Early adopter in Texas (2008)
- 49+ hybrid

### James Madison University

- Public University- one campus: Harrisonburg, Virginia
- Post- MS DNP APRNs and Systems Leadership
- Program started in 2014
- 32 students enrolled
- 100% On-line

5

## Implementation Science and the DNP

### AACN 2015- The Doctor of Nursing Practice: Current Issues and Clarifying Recommendations -Report from the Task Force on the Implementation of the DNP

“practice-focused graduates are prepared to generate new knowledge through innovation of practice change, the translation of evidence, and the **implementation** of quality improvement processes in specific practice settings, systems, or with specific populations to improve health or health outcomes.”

“it is crucial that the profession clarify the scope of the final scholarly project, the level of **implementation**, the impact on system/practice outcomes, the extent of collaborative efforts, the expected dissemination of findings, and the degree of faculty mentorship/oversight.”

6

## Implementation Science and the DNP

- “the elements of the DNP Project should be the same for all students and include planning, **implementation**, and evaluation components.”
- “Demonstrate **implementation** in the appropriate arena or area of practice.”
- “Dissemination of the DNP Project should include a product that describes the purpose, planning, **implementation**, and evaluation components of the project, and should be required for each project.”

7

## Implementation Science and the DNP

- “Each member of the group must meet all expectations of planning, **implementation**, and evaluation of the project, and be evaluated accordingly.”
- “**Implementation** of quality improvement processes. (To address faculty development in the use of quality improvement methods further ..”
- “Programs are encouraged to consider a broad range of academic-practice partnerships, e.g. with school systems, prison systems, and public health departments, that afford students opportunities to engage in the full planning, **implementation**, and evaluation of a project that impacts healthcare outcomes.”

8



## **Similarities between improvement and implementation sciences**

- Both fields aim to produce knowledge....
- that is actionable in practice.....
- results in improvements....
- and contributes to scientific knowledge.

9



## **Design: Implementation and Improvement**

- QI project teams design improvement changes, but they do not usually think of “designing implementation.”

10



## Our Project: Quality Improvement

### Overall goal-

- Determine the degree to which DNP Projects in two universities embedded theories, models, and frameworks from Implementation Science and used evidence-based implementation strategies.
- IRB approval as a QI

11



## Methods

- Plan (P) Do (D) Study (S) Act (A) methodological framework in conducting this project to determine the use of theories, models, and frameworks from Implementation Science
- First iteration of a PDSA cycle
- Used a faculty-developed audit tool to retrospectively review a sampling of DNP Projects
- Descriptive statistics used to determine the degree to which Implementation Science is a part of DNP Project development and evaluation

12

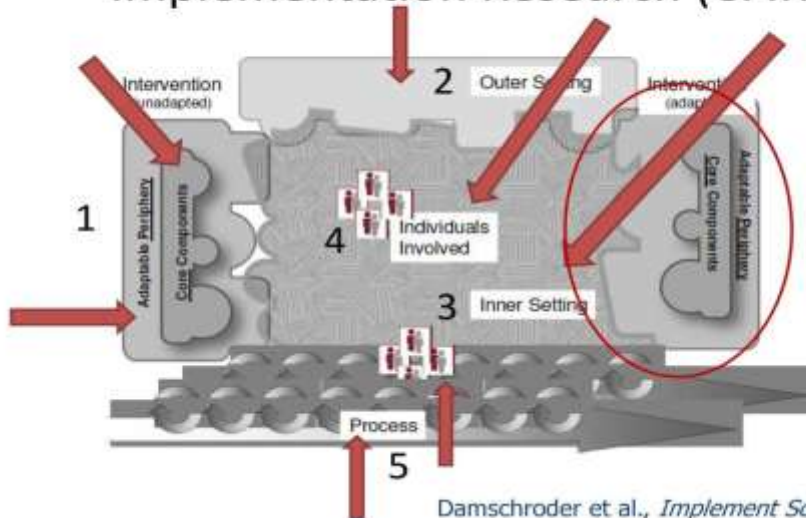
## Consolidated Framework for Implementation Research (CFIR)

- Intervention/Characteristics of the intervention
- Context - Outer setting
- Context -Inner setting
- Individuals involved
- Process by which implementation is accomplished

(Damschroder, L., Aron, D., Keith, R., Kirsh, S., Alexander, J. and Lowery, J., 2009)

13

## Consolidated framework for Implementation Research (CFIR)



Damschroder et al., *Implement Sci*, 2009 18

14



## Results: Demographics

- Type of projects
  - 22 QI Projects
  - 2 Policy Analysis
- Location of projects
  - 12 Community
  - 12 Acute care
- Type of DNP student (area of specialization)
  - 14 APRN's
  - 10 Systems Leadership
- Type of organization

15



## Results: Demographics (continued)...

- Population focus
  - HF Patients
  - Pre Diabetes
  - Nurse Staffing/Costs
  - Procedural Sedation
  - Nurse Incivility
  - Psychiatry
  - Inpatient Hospice Care
  - Sepsis
  - Pediatric
  - Acute Care
  - Providers

16





## Results: Demographics (continued)...

- Intervention: Single strategy vs. Bundled approach
  - Bundled 24
- Team/Group Projects – 0

17



## Results/Findings: Overall Impressions

- Interventions were identified and most evidence-based
- Implementation language was used; however, not always from a model/framework/theory perspective
- External context was generally described using an organizational assessment tool (Readiness for Change, SWOT, Microsystems)
- 100% of students identified some type of methodological framework/ intervention(s)- EBP, QI, Program Evaluation, and Policy Analysis
- There is no mention of fidelity in any of the 24 projects reviewed regarding interventions
- Descriptions of evaluation methods described in 12/24 projects

18

## Conclusions

- Obtained a “read” on our current projects
- Created and piloted the use of a Faculty Developed Audit Tool (based on CFIR) to Evaluate DNP Project Components Related to Implementation Science

19

## Project Consistencies Across Both Universities

- Used evidence based interventions
- Described the core components of the interventions
- Addressed patients, families, consumers, etc.
- Included descriptions of cultural, organizational, professional, and individual mindsets, norms, interests, and affiliations
- Included evaluation plans that addressed effectiveness of the intervention
- No projects demonstrated evidence of a formal implementation blueprint

20

## Project Variations Across Universities

- Methods or techniques used to enhance the adoption of a practice were not consistently narratively outlined
- Strategies such as peer mentoring, train the training, mass media, etc. were not always identified
- Barriers and facilitators were not consistently described within a framework of implementation for both inner and outer settings
- Consideration of what might deter or advance the success of the implementation strategies used were not consistently addressed

21

## Implications: Lessons Learned

- Much work to be done .....
- Questions to consider:
  - Where does implementation science "fit" in the curriculum?
  - Structuring DNP Projects to include implementation science
  - Theories, Models, and Frameworks . . . Oh my!

22



## Next steps . . .

- Cross-walking courses to determine how to “infuse” and “grow” improvement and implementation science into curriculum and projects
- Faculty Development
- Begin to explore how context matters . . . Use of tools

23



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24



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25



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26



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