

NPs Making Changes that Matter: Scholarly Projects in Practice Doctorate Programs

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Presenters

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Objectives

- To discuss principles that guide the development of scholarly inquiry projects
- To recognize commonalities and differences exist across programs
- To promote quality and innovation in scholarly projects
- To present two expanded exemplars of scholarly projects

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Assumptions About NPs with Practice Doctorates

- Address significant practice issues in a scholarly way (rigor)
 - Acquire information systematically that guides meaningful change
- Adopt a broad system perspective for the improvement of health for a group or population rather than the care of a single patient
- Accept leadership responsibility for transforming care
- Remain involved in the on-going evaluation of care outcomes and the need for practice change

Scholarly Projects: Recommended Criteria

- 1. The project is related to advanced practice in the nursing specialty
 - Often arises from clinical practice
 - May be done in partnership with another entity: clinical agency, school, health department, church, government, voluntary organization or community group, etc.
- 2. The project leadership may be solo or collaborative depending on scope of the project and university requirements
- 3. The scholarly project addresses identified needs
- 4. The literature review suggests an evidence base for the project or supports the need for the project

Recommended Criteria Cont'd

- 5. Description of the innovation is adequate for others to use (essential components for success, cost, etc.)
- 6. A systematic approach is used and data are collected using methods and tools that meet accepted standards
- 7. Expected outcomes are defined and measured (quality improvement, cost savings, etc.)
- 8. The project is conducted according to ethical principles
- 9. Dissemination modes are professional and public (peer review is included)

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Scholarly Projects

- Types of projects include but are not limited to these:
 - Translate research into practice
 - Develop, implement and evaluate evidence based practice guidelines
 - Quality Improvement (Care processes, Patient outcomes)
 - Policy improvement: Develop, implement, evaluate, or revise policy
 - Design and use databases to track and retrieve information for decision making, planning, evaluation (informatics)
 - Design and evaluate programs
 - Conduct financial analyses (compare care models and their potential cost savings etc.) ⁷

Scholarly Projects Cont'd

- Provide leadership of interprofessional and or intra-professional collaborative projects (to implement policy, evaluate care models, improve care transitions, etc.)
- Collaborate with researchers to answer clinical questions
- Collaborate with government and on legislative change using evidence to improve policy, care programs, advanced nursing practice, scope and financing, etc
- Work with lay and or professional coalitions to develop, implement or evaluate health programs (such as health promotion and disease prevention programs for vulnerable patients, groups or communities)

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Topics for Scholarly Projects

- Evaluate interventions, innovations in care techniques
- Obtain baseline data, design an evidence based intervention and plan and evaluate
- Collaborate with other NPs or other professional colleagues to compare/ evaluate group visits
- Capture data on common problems and effectiveness of treatments with recommendations for change ⁹
- Evaluate management of psychiatric patients (protocols, meds, metabolic monitoring)
- Evaluate peer led support groups and their impact
- Evaluate pain control in palliative care
- Promote patient safety by reducing errors in medications
- Evaluate home care comparing satisfaction with physician and NP care

Health Promotion & Community Health: Epidemiology and Continuity of Care

- Compare strategies for health promotion / disease prevention (community, schools, churches, etc.)
- Identify trends in patient visits, outreach programs
- Launch collaborative new health promotion program in vulnerable community population and evaluate it
- Develop and evaluate monitoring tools or screening programs
- Evaluate screening protocols ¹⁰
- Evaluate programs (care, training volunteers, education)
- Evaluate community responses to disasters
- Develop and evaluate the impact of self-care models
- Develop and test transition protocols to promote continuity of care across settings
- Evaluate high risk patients and develop approaches for risk reduction (child and elder abuse) for policy or care improvement

Policy-Related Scholarly Projects

- Implement new policy collaboratively by designing and evaluating HPV vaccination for 6th grade girls to prevent cancer (partnering with School/ Health Dept., etc.)
- Evaluate or compare nursing home policies for treating chronic pain
- Evaluate students at risk (school dropouts, depressed, substance users, pregnant) and recommend policy change, programs
- Evaluate employer policies regarding health and potential cost savings of new policies
- Evaluate the effect of evidence based policy in NICU
- Evaluate inconsistencies in scope of practice issues and use evidence based knowledge and to recommend changes

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Integration of Technology in Care and Informatics Related Projects

- Create a database for monitoring childhood injuries in urgent care and evaluate its impact
- Use technology to improve care (telehealth consultation, interactive "home" visits, etc.) and evaluate results
- Evaluate technology's impact on care (information transfer to point of care, etc)
- Establish protocols that integrate use of technology in patient assessment in urgent care and evaluate their impact
- And so forth.....

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Qualitative and Quantitative Methods

- Multiple modes of inquiry may be combined as needed to adequately address the practice phenomena including:
 - observation,
 - interview,
 - chart audit,
 - survey,
 - focus groups, etc.

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Process Cont'd

- The scholarly project is Not a dissertation
- However, the methods and quality of tools used to collect data meet accepted standards
- Data are analyzed, interpreted and presented
- Changes are recommended based on data
- Results are disseminated
 - Scope of projects and results
 - Impact
 - Potential for adoption by others
- Peer review is part of the process

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Issues Inherent in Scholarly Projects

- Faculty guidance (Committee or Advisor?)
 - Doctorally prepared, expertise in advanced practice, knowledgeable about population and content focus
 - Involvement of agency?
- Leadership: Independent (Solo) or Collaborative Role?
 - Each university sets guidelines for range of projects that are acceptable for doctoral level work
- Duration of projects?
- Human Subjects Approval of projects: expedited?
- Relationship of scholarly project to clinical practice?
 - Not all projects arise from patient care
 - Some will examine policy, roles, skill development and competencies, technology, financial, educational, etc.

Issues Cont'd

- Presentation for approval (plan, rationale for proposed methods, alternatives considered, data analyses planned?)
 - Systems thinking demonstrated
 - Leadership
 - Advanced practice knowledge/expertise
 - Scope of the project?
 - Methods feasible?
 - Support of stakeholders?
 - Potential impact?
 - Funding?
 - Decision making processes?
 - Human Subjects approval process?
 - Training of staff?
 - Nature of product or deliverable required?
 - Dissemination of results to agency and beyond

Learning Outcomes Identified

- Self-reflection on processes, outcomes, system, advanced practice
 - Insights, new models of care
 - Collaborative styles, leadership styles
 - Cost savings, policy implications
- Synthesis of learning (integration of program competencies in advanced practice)
- Engage faculty and peers in evaluation of project
- Discuss evaluation of results with stakeholders
 - Permission for public dissemination of results
 - No identifying data used

Other Potential Learning Outcomes

- Did the project help translate research to practice?
- Was the project able to help reduce health disparities?
- Did the project raise additional questions that affect quality care?
- How might the results be used to improve practice?
- Does the project suggest changes needed in evidence based guidelines?
- Does the project provide useful information for future research that is needed?

Deliverable Product Required?

- Form of the deliverable product varies with the project
 - Media with evaluation of results
 - Database with interpretation of data
 - Executive report: data interpretation of results, costs, etc.
 - Policy: evidence based recommendations
 - Practice change: evidence based change
- University requirements will vary
 - Final report
 - Public presentation
 - Submission of a manuscript for publication
 - Permanent copy on file 19

Practice Exemplar #1

- Improving the Quality of Health Care for Latino Adults with Diabetes Mellitus in a Rural Community Clinic
- Submitted by Katherine Crabtree APRN, BC, DNSc., Professor, Oregon Health & Science University
- Type of project: Quality Improvement
- Population Focus: Latino adults receiving diabetes care at a community clinic serving migrant and resident Latinos exclusively.

Leader and Collaborators

- An experienced ANP (DNP student) who had practiced in the clinic for the past year, was fluent in Spanish and known to staff conducted the project onsite with assistance from
 - Medical Director, two FNPs, 2 RNs,
 - Office of Medical Records, the receptionist and the technician who identified and compiled the number of diabetes visits and the patients' names.

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• Faculty Guidance

- A doctorally prepared faculty committee of two persons knowledgeable in diabetes care and practice evaluation
- Purpose of the Project
 - Evaluate the diabetes care of adult Latino clients in one community clinic over the past year and determine how well patient outcomes met national ADA criteria
 - Make recommendations for redesigning and improving diabetes care received by patients in one clinic that was part of a network of clinics serving Latino patients

Rationale/Need for the Project

- Literature and clinic records documented
 - High incidence of diabetes in Latinos
 - Need for patient education to prevent complications and improve follow up
- Medical Director seeking to reduce cost of care due to preventable diabetic complications
- Staff dissatisfaction with poor outcomes for diabetic patients
- Diabetic patients were lost to follow up

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Method

- Met with staff about patient services, their concerns about follow up care and later presented a proposed project to staff.
- Audited charts of all adult patients with diabetes seen in the clinic during the past year.
- Audit criteria were based on the national ADA standards for diabetes care.
- A flow sheet was used to track diabetes education and care at every visit.

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Process and Outcome Data (N=120 patients making 300 visits)

- Process data: % of patients receiving care that met the national ADA standards.
- Patient outcomes: % of patients meeting national ADA criteria.
- Executive summary:
 - 95% of BPs documented, 90% meds recorded, 89% had regular foot exams, 81% lipids and triglycerides, 80% cardiac risk factors documented, 72% BPs controlled, 70% referral for diet and weight counseling.
 - < 70%: Hgb A1c <7, 69% annual eye exams, 50% annual microalbuminuria, 40% smoking cessation, 10% oral exams and 8% pre-conception counseling.

Results of the Project Cont'd

- % of patients given appropriate therapy varied
 - 70% of patients received vaccines (influenza, pneumococcal)
 - 60% of patients on Aspirin
 - 40% of patients treated with renal protective drugs (ACEI or ARB) if indicated
 - 20% of patients on multiple anti-diabetic drugs
 - 8% of patients were taking insulin

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Results Cont'd

- Results presented and discussed with the Medical Director and staff.
- Staff involved in revision of the diabetes care protocol; trained to use the flow sheet for documentation.
- DNP investigator then provided consultation to the staff and re-audited charts.
- Results were then compared with previous rates of compliance with national standards and the literature.

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Recommendations

- Changes in practice: Under the leadership of the DNP, a revised program was in process of being implemented.
- Data were used to estimate cost reductions associated with fewer diabetic complications.
- The DNP recommended re-evaluation of the revised program after 3mos.
- Monitoring was instituted (periodic random audit of charts) to evaluate consistency in quality.
- If results warranted, the changes could be implemented at other clinics serving Latinos

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Dissemination of Results

- With permission of the agency, the results were disseminated broadly
- Presented at the annual statewide NP conference
- Article submitted to a journal for national publication
- Abstract submitted for presentation at a national professional meeting.

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Learning/Outcomes

- A power point presentation to faculty and peers included process and outcome data and estimated cost savings.
- Article submitted for publication was peer reviewed.
- The DNP identified learning that accrued, how the findings were being used, plans, potential for future adoption at other similar clinics.
- The Medical Director invited collaboration on a grant to expand QI initiatives in the clinic.
- Collaboration sought with university dental and eye clinics to improve care and provide a valuable training site for multiple professional disciplines.

Scope of the Project

- Determined by university guidelines
- Feasibility given time devoted to projects
 - Projects may evolve through course work
 - Expands the time in which to explore and develop aspects of the projects
 - Students receive feedback regarding alternatives and strategies before project implementation
- Faculty and other resources to support projects
- Funding
 - Involvement of resources from collaborating agency
 - Availability of university funds, community support or funds from professional organizations
- Potential impact
- Results

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Practice Exemplar # 2

Development of a Database to Document the Quality of Mental Health Care for African American Teenagers and to Improve Services in an Urban Inner City Community Based Pediatric Clinic

Submitted by Diane Magyary ARNP, PhD, Professor, University of Washington School of Nursing

Type of Project: Health Informatics with Emphasis on Quality Improvement

Population Focus: Teenagers

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Lead Investigator and Collaborators

- DNP Student took the lead in designing and conducting the project onsite with assistance from:
 - Nursing & Medical Director
 - Three PNPs & Four Pediatricians
 - Quality Improvement Officer
 - Data Management Officer

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Faculty Guidance

- Student is an experienced PNP who had practiced in a pediatric primary care clinic for ten years.
- Student was guided by doctorally prepared faculty committee of three persons.
 - Two were knowledgeable in pediatric primary & mental health care, and health informatics.
 - Another faculty outside the School of Nursing represented the Graduate School to assure that the process was in accordance with scholastic policy, procedures & standards.³⁴

Purpose of the Project

- Develop a Minimum Data Set (MDS) that best captures the quality of pediatric mental health primary care with consideration given to the following existing databases:
 - Most salient & easy to collect "Prevention Quality Indicators" for the specified clinic population
 - National Pediatric Benchmark Prevention Quality and Safety Indicator Data Sets
- Pilot test MDS for 6 months
- Analyze feasibility of implementing MDS
- Analyze data for a few good Indicators that capture variance patterns & potential problem areas for further tracking and study.
- Make recommendations regarding the mandatory ongoing collection of a small set of meaningful mental health indicators at a reasonable cost.

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Rationale/Need for the Project

- National policy papers & reports call for new vision emphasizing integration of primary care & mental health services such as depression screening in Well Child Care.
- Literature documents that teenagers are at risk for suicide due to depression.
- Clinic's medical records document a high incidence of depressed teenagers seen in local hospital ERs for suicide ideation/ attempts and subsequent in-patient hospitalizations.
- These teens had been recently seen in WCC prior to suicide ideation/ attempts

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Rationale/Need for the Project Cont'd

- Growing national measurement emphasis placed on performance measures that document what providers do & evaluate outcomes of their actions.
- Clinic primary care providers are dissatisfied with inadequate MDS to profile variability in Mental Health process & outcome indicators in a meaningful and standardized way.
- Nursing & medical directors seek to enhance quality & cost-effective care by preventing suicide attempts and inpatient hospitalizations.

Methods: Preparation

- Reviewed national data sets on mental health "Prevention Quality & Safety Indicators"
- Met with directors and staff to elicit their ideas on:
 - Measurement philosophy, purpose & challenges
 - Identification of clinically relevant, useful & easy to collect mental health indicators
- Met with quality improvement and data management officers to discuss
 - Measurement philosophy, purposes & challenges
 - Options for data design & collection strategies for incorporating mental health indicators into the current MDS
 - Options for Data Analysis & Reporting

Methods: Implementation

- Obtain Human Subjects Approval
- Develop Data Collection Form: Clinic Visit Flow Sheet (5 Step Checklist)
- Collect data on every teen seen in WCC during next 6 months
- Develop a data entry process
- Revise current patient registry data base to incorporate & track identified process & outcome indicators over time
- Generate data analysis reports

Selected Mental Health Indicators: Depression

Initial Phase of Screening Process

Clinic Visit Flow Sheet Checklist: 5 Steps

1. Number of initial depression screenings completed per # teens seen in WCC
2. Number of at-risk teens (subclinical/ clinical depression scores)
3. Number of same day primary care counseling discussions with at-risk teens about meaning of clinically significant scores
4. Number of same day mental health referrals for at-risk teens
5. Number of scheduled follow up acute primary care visits for at-risk teens

Follow-Up Phase of Screening Process

Patient Registry Data

- Number of completed follow up acute primary care visits for at-risk teens

Clinic Visit Flow Sheet

- Number of follow up depression screenings for at-risk teens

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Screening Outcomes

- Number of at-risk teens enrolled and actively engaged in mental health services
- Number of teens with improved follow up depression scores
- Number of teens seen in ER for suicide ideation/attempts

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Results

- 148 Teens seen in WCC over six month period.
- *Initial Phase of Screening Process*: the majority (85%) of providers completed the 5 step screening process indicating minimal variation in screening.
- *Follow-Up Phase of screening process*: wide spread variation across providers who assured that a follow up acute care primary care visit actually occurred (range 80%-34%).
- When a follow up acute primary care visit occurred, 60% at-risk teens did not follow through with a mental health referral, were not actively engaged in counseling and continued to have clinically significant depression scores.
- 1.3 % of 148 teens initially screened & identified at-risk were seen in ER for suicide ideation⁴³, slightly < 2% at baseline.

Dissemination & Recommendations

Results presented and discussed with administrators, clinicians & faculty. Their general consensus was that:

- Data collection process was feasible.
- *Initial phase* of the screening process was implemented without problems.
- *Follow-up phase* of the screening process is a problematic area that needs to be addressed from a provider and system perspective. ⁴⁴

Dissemination & Recommendations Cont'd

- Provider solutions entailed how best to:
 - motivate teens to follow through with mental health referral
 - contact teens during interim between visits
- System solutions entailed how best to :
 - identify and bridge appropriate referrals to mental health services
 - schedule a quicker turn around follow up appointment
 - monitor and flag missed follow up acute primary care visits. ⁴⁵

Dissemination & Recommendations Cont'd

- Consensus for Future Ongoing Monitoring
 - Most salient *process indicators* for MDS are the two follow-up screening indicators
 - Most salient *outcome indicators* for MDS is undetermined at this time given limited follow-up visits and limited duration of pilot study; therefore, continue to monitor all three outcomes.
 - Comparison with national indicators on prevalence of depression and suicide ideation & attempts is premature at this time given limited follow-up data.

Dissemination & Recommendations Cont'd

- Agreed that data will be collected for 12 months with periodic 3 month data review.
- Agreed QI Officer would monitor the ongoing data collection, entry and analysis process.
- Student wrote a report on preliminary results & recommendations.
- With permission from the agency, student presented the preliminary results at the annual statewide NP conference
- Student plans to be involved in future data analysis and the submission of an article for publication. ⁴⁷

Learning Outcomes

- Learning outcomes entailed leadership, collaboration and consensus building, scholarly inquiry, human subjects and ethics, and advanced practice.
- Final evaluation of the scholarly project entailed power point presentation at the clinic and NP conference, plus written concise QI summary report . ⁴⁸

Discussion of Issues and Questions from Participants.

- Recommended Criteria
- Faculty Guidance
- Independent or collaborative group projects may be appropriate if allowed by university requirements
- Interprofessional and intra-professional projects with nursing leadership
- Collaboration with others (community coalitions, agencies, governmental and professional policy making organizations, etc.)
- Cost of the project
- Impact of the project
- Evaluation of student's leadership and knowledge of advanced practice which are integrated in the skills needed to implement the scholarly inquiry project.

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Summary and Conclusion: Synthesis of Learning

- The scholarly project brings together leadership, expertise in advanced practice, scholarship and systems thinking
- All are needed to transform health care.

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Shared Resources

- Please share exemplars from other practice doctorate programs.
- Send exemplars to:
 - nonpf@nonpf.org
- Visit the NONPF website www.nonpf.org
 - For criteria for the scholarly projects
 - For copies of exemplars of scholarly projects
 - For competencies for the doctor of nursing practice
 - For additional resources

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