

# A Delphi Study to Determine Nurse Practitioner Core Competencies

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1

## Acknowledgement

Dr. Joan Such Lockhart, PhD, RN, CNE, ANEF,  
FAAN

Dr. Rebecca Kronk, PhD, MSN, CRNP, FAAN, CNE

Dr. James Schreiber, PhD

Dr. Anne Thomas, PhD, ANP-BC, GNP, FAANP

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2

## Background

- Current Nurse Practitioner (NP) education is both MSN and DNP
- Competency-based education (CBE) has been recommended for nurse practitioner (NP) education.
- To implement CBE the core competencies NPs need to obtain must be reduced and refined.

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3

## Significance

- CBE has been implemented in various health care professions and has been recommended for nursing
- Various health-related organizations have defined 354 core competencies for Advanced Practice Registered Nurses (APRNs)
- Current core competencies are weakly aligned with NP practice
- Competencies should reflect workforce needs

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4

## Purpose

- Refine and reduce redundancy in core APRN competencies
  - Utilized National Organization of Nurse Practitioner Faculties (NONPF) 2017 *NP Core Competencies* and American Association of Colleges of Nursing (AACN) 2006 *Essentials of Doctoral Education for Advanced Nursing Practice* and 2017 *Common Advanced Practice Registered Nurse Doctoral-Level Competencies*
- Assure NP core competencies are relevant as well as clear and measurable

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5

## Research Questions

- What are the core competencies necessary for entry into independent NP practice as a DNP?
- Are the necessary competencies clear and measurable?

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6

## Methodology

- Delphi approach
  - Allows discussion and judgment on a topic without interpersonal interaction which can create bias and conflict
  - Collect a group of experts' opinion to reach consensus through a series of questionnaires that build upon each other

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7

## Design, Setting, Sample

- Questionnaires administered electronically utilizing Qualtrics
- Sample is a selected panel of individuals that are perceived to have expertise in NP education and practice
  - Recruited with assistance of NONPF
  - Individuals nominated to be on the panel
    - Invitation to participate sent by researcher with study details

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8

## Inclusion Criteria

- 1) employed in the U.S.
- 2) able to read and write in English
- 3) and either
  - 1) faculty with a minimum of three years of experience in a BSN-DNP program;
  - 2) actively practicing NP clinician educated as a DNP with a minimum of five years of experience; or
  - 3) recent BSN-DNP program graduate whom has been employed as a NP full-time for 6-18 months

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9

## Panel

- 60 nominees sent invitation to participate
  - 37 BSN-DNP faculty
  - 13 actively practicing NPs with 5 years experience as DNP
  - 7 new BSN-DNP graduates practicing as NPs
- 37 consented to participate
  - 16 never responded
  - 7 declined or did not meet inclusion criteria

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10

## Data Collection

- Researcher devised questionnaire based on NP core competencies with a focus on evaluation to gain consensus
  - *NONPF Core Competencies* (NONPF, 2017)
  - *The Essentials of Doctoral Education for Advanced Practice Nursing* (AACN, 2006), and
  - *Common APRN Doctoral-Level Competencies* (AACN, 2017)

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11

## Round One

- First round presented the 139 different NP core core competencies randomly
  - Pilot testing done
- Rate competencies for:
  - Relevancy (1-4 scale)
- Option to add comments and additional recommended competencies

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12

## Round Two

- Developed based on results of round 1 analysis
- Competencies were grouped together by a concept
- Panel asked to determine if competency is:
  - Critical (1-4 scale)
  - Measurable (yes/no)
  - Clear (yes/no)
  - Redundant (yes/no)
- Opportunity for comments and suggestions to change a competency or missing concepts

13

## Round Three

- Developed based on round 2 survey results
- Competencies grouped together according to Englander, et al (2013) *Taxonomy of Competency Domains for the Health Profession Competencies*.
- Panel asked for each competency:
  - Agreement (1-4 scale)
  - Appropriate domain (yes/no)
- Opportunity for comments and suggestions to change a competency or missing concepts

14

## Data Analysis

- Quantitative data
  - SPSS 23
  - Median & interquartile range
  - Percentage of agreement
  
- Qualitative Data
  - Manual approach
  - Content analysis
  - Audit trail

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15

## Panel Members

| Characteristic                | Consented | Round 1  | Round 2  | Round 3  |
|-------------------------------|-----------|----------|----------|----------|
| Male                          | 6 (16%)   | 4 (15%)  | 3 (14%)  | 2 (12%)  |
| Female                        | 31 (84%)  | 23 (85%) | 18 (86%) | 15 (88%) |
| BSN-DNP Faculty               | 25 (68%)  | 17 (63%) | 15 (71%) | 13 (76%) |
| Actively Practicing DNP 5 yrs | 8 (22%)   | 7 (26%)  | 4 (19%)  | 3 (18%)  |
| Recent BSN-DNP Graduate       | 4 (11%)   | 3 (11%)  | 2 (10%)  | 1 (6%)   |
| Adult NP/ Primary Care        | 7 (19%)   | 7 (26%)  | 6 (29%)  | 3 (18%)  |
| Acute Care NP                 | 5 (14%)   | 3 (11%)  | 3 (14%)  | 3 (18%)  |
| Family NP                     | 16 (43%)  | 12 (44%) | 8 (38%)  | 7 (41%)  |
| Pediatric NP                  | 6 (16%)   | 4 (15%)  | 3 (14%)  | 3 (18%)  |
| Psychiatric NP                | 2 (5%)    | 0        | 0        | 0        |
| Neonatal NP                   | 1 (3%)    | 1 (4%)   | 1 (5%)   | 1 (6%)   |

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16



## Results Round 1

- Quantitative results no competencies eliminated
  - 131 of 139 consensus on relevant
  - 8 no consensus on relevancy
- Qualitative eliminated 51 competencies
  - Redundancy
  - Measurability
- 88 competencies moved forward to round 2 survey

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17

## Results Round 2

- Quantitative 47 did not reach consensus
  - interquartile range above 1 and/or below 80% agreement on clarity or measurability
  - Redundancy in 6 out of 7 concepts
- Qualitative
  - Reduction in competencies based on redundancies
  - Rewriting of competencies to clarify them or make them measurable
  - Additional 4 competencies written due to missing concepts
- Eliminated 39 competencies, 49 competencies evaluated in round 3

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18

## Results Round 3

- Quantitative
  - 48 out of 49 reached consensus
- Qualitative
  - One competency reworded and moved domains
- Final list of 49 competencies in 8 domains

Note: show word document listing the competencies

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19

## Discussion

- Achieved final list of 49 competencies for NPs educated as BSN-DNPs
- Redundancy was main issue with initial competencies
- Content analysis was main strategy for reducing and revising competencies
- Only a few concepts were missing from competencies
- Included perspective of educators and practicing NPs

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20

## Limitations

- Mainly related to Delphi method
  - Determining consensus
  - Reliability and validity
  - Bias of expert panel
- Variation in NP practice across US

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21

## Implications for Nursing

- National organizations utilize study results to revise BSN-DNP core NP competencies
- Movement toward CBE is occurring
  - First step is appropriate, measurable competencies

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22

## Conclusions

- Produced a list of 49 relevant, clear, and measurable NP core competencies
- Panel composed of educators and practicing NPs
- NP education needs to move to CBE as other health professions have done

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23

## Questions?

- Contact Information  
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- Manuscript accepted for publication in Journal of the American Association of Nurse Practitioners

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24