Preparing DNP/NP Providers to Meet the Health Care Needs of Rural/Underserved Communities through Technology

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DNP Program Description

- Postmasters
- Advanced Practice Nurses
  - Nurse Practitioners (FNP, WHNP, PNP, PMHNP)
  - Clinical Nurse Specialists
  - Midwives
- Online with one weekend on campus each semester

Why Focus on Technology

Focus areas of program:
- Emerging technologies
- Vulnerable populations
- Healthcare from rural, underserved areas
- IOM Report
- Health Care Reform
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**HRSA APN Grant**

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**Technology Focus of HRSA Grant**

- Telehealth
- Clinical Decision Support
- Social Media
- Electronic Health Records (EHR)

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**Presentations on Educational Program**

- Technology Workshop
  – Michele Bordelon
- Technology Focused DNP/NP Projects
  – Laurel Shepherd
- DNP/NP as a Leader in Healthcare Technology
  – Michelle Renaud
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A Technology Workshop for DNP/NP Students in Rural America
Michele Bordelon, MSEd

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A One-Day Technology Workshop
• On-campus weekend
• Fall semester
• Conducted at the Theresa A. Thomas Professional Skills Teaching and Assessment Center at Eastern Virginia Medical School in Norfolk, Virginia

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Structured Around Hands-On Application
• Began with standardized patient session
• Followed by technology modules
  – Social Media
  – Telehealth
  – Clinical Decision Support
  – Electronic Health Records
• Students given follow-up assignment
Utilized Standardized Patients to Create Realistic Experience

- Stroke patient and caregiver
- Recently discharged from hospital
- Experiencing issues inherent in healthcare in rural America
  - Lack of access to:
    - Quality care
    - Specialty care
    - Education
  - Isolation from social support systems
- Group interview identifying:
  - Stroke impact, post-accident
  - Availability of health care, living in a remote area
  - Ability to utilize technology

Students Rotated through Four Technology Modules

- Hands-on exposure
- Armed with information from standardized patient assessment
- 50 minutes with each module
- Each module included:
  - Practical application activity
  - Group presentations and discussion
  - Demonstration
  - Benefits and barriers
  - Recommendations

Modules
Social Media Module on Use of Social Media for Patient, Caregiver and Provider Support and Education

- Overview of social media model
- Breakout groups of 2 or 3
- Each group assigned specific task:
  - Research social media
  - Find appropriate application, given earlier patient/caregiver assessment
  - Make group presentation

Group presentation:
- Why did you select?
- "Tour" of media
- Benefits and barriers
- Discussion and recommendations

Groups Given One of Three Assignments Using Social Media

- Group 1 – using either YouTube or ICYou – find an education video for stroke patient/caregiver
- Group 2 – using The Stroke Network website – determine how patient/caregiver can use this site for social support
- Group 3 – using Facebook or LinkedIn – determine how providers can access other providers for support and professional development purposes

Telehealth Module Provided Opportunity to Learn How to Work with a Patient “Virtually”

- Participation in sample Telehealth session:
  - Standardized “stroke” patient and caregiver located in one room
  - Students in another room
  - Both rooms set up with Telehealth video equipment for real-time conference
- Example: Have patient balance a book on the palm of each hand to demonstrate equal balance and strength (vs. in-person assessment (squeeze my two fingers, etc.)
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Practical Experience was Followed by Group Discussion

• What were the benefits?
• What were the barriers?
• What recommendations for use would you make?
• How can you use in your practice?

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Clinical Decision Support Systems Taught Students How to Use Such Tools to Extend and Improve Care

• Utilizing tools – such as stroke apps on the iPad (NIH stroke scale, epocrates)
• Instruction on how to go about obtaining apps
• Explored types of apps:
  – For providers and patients
  – Assessment
  – Patient education

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Students Assigned to Breakout Groups of 2 to 3

• Instructed to find apps for:
  – Stroke patients and caregivers
  – Providers
• Demonstrate to group
  – Benefits and barriers
  – How to overcome barriers
  – Recommendations

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Electronic Health Records Module
Exposed Students to Use of EHR

• Advantages:
  – Ease of prescribing medications
  – Referrals to specialists
  – Transmission of patient data between providers
  – Ease of access to information

• Disadvantages:
  – Templates that constrain decisions
  – Confidentiality
  – Systems not compatible

There are Some Educational Constraints with EHR

• Training templates extremely expensive, if available at all
• Many templates aren’t well populated with patients or experiences
• Many templates are too artificial

Students Followed Up Workshop with Technology Assignments

• Applied a modality to their respective practice settings
• Example: Facebook page for isolated siblings of chronically ill children
  – A support community
  – Moderated by provider
  – Safe space
  – Rules of Engagement
As a Result of Workshop, Students Have Incorporated Technology in Their Practices

- Purchased iPads for practice
- Integrated clinical decision support
- Served on committees to choose EHR
- Introduced social media programs to patients and practices
- Some have fostered participation in TeleHealth networks