SEAMLESS TEACHING AND LEARNING OF INFORMATICS AND HEALTH INFORMATION TECHNOLOGY COMPETENCIES FOUND IN DOMAIN 8 USING A CASE STUDY APPROACH

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PROBLEM/INTRODUCTION

- Failure to address informatics and health information technology competencies impacts the Four Spheres of Care, Systems Based Practice, and Evidence Based Practice

- Nursing education is dense with concepts and skill-sets of many kinds and thus integrating these Domain 8 competencies will foster seamless learning and the clinical reasoning and leadership that must take place to be a competent beginning professional nurse upon graduation

- Informatics and health information technology competencies found in Domain 8 can be threaded through all aspects of nursing education to foster competent nursing practice for the complexity of 21st century healthcare

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INTRODUCTION/PROBLEM

- Faculty development in informatics, digital health, and technologies is a necessary and essential component to the integrated case study process
- A case study approach incorporating Informatics and health information technology competencies accelerate the weaving together of multi-faceted topics into nursing education
- The best case studies are those that are relevant for the level of student, the practice context, and participants or population of interest
- Faculty may need support to learn how to do case study development

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BACKGROUND

NKBDS Framework to Improve Health and Healthcare

https://nursing.umn.edu/centers/center-nursing-informatics/five-year-plan

Pruinelli, L., Freeman, R., & Delaney, C. W. (2022). 2022 Nursing Knowledge: Big Data Science Conference: Setting the stage for the next 5 years' achievements. *Computers, Informatics, Nursing,* 666-669, https://journals.lww.com/cinjournal/Citation/2022/10000/2022_Nursing_Knowledge__Big_Data_Science.2.aspx

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PURPOSE

- Demonstrate that these complex Domains can be successfully connected through case studies that capture concepts and competency building of other Domains at the same time, just as they might occur together in everyday professional practice.

METHODS

- Both entry to practice and advanced levels of students can be exposed to the important concepts and competencies found in Domain 8 using this approach.
- Learning the process for developing such case studies will assist faculty to incorporate Domain 8 into lessons that include all other Domains and to foster clinical reasoning.
- Much of the work of case studies is plausible design of the "story". Examples from current practice are valuable for this process.
- Case studies should be reality based, relevant, and believable in the SONs context (rural/urban, high resource/low resource settings, etc.)

PROVIDE A COMPELLING STORY

What We Did

- Created a large integrated family with defined characteristics and demographics across the lifespan
- Selected current stories/vignettes from nursing practice which could be used in a variety of courses
- Wrote 3 storyboards of case studies reflecting Domain 8 and other related competencies, and when needed the more specific sub-competencies
- Mapped to Learning Objective/Assessment, Bloom's Taxonomy Level, Involved AACN Domains, and Specific Domain 8 Sub-competencies.

Four Main Steps for Learners:

1. Read Background (or watch if your case study is video recorded)
2. Pre-Class Session/Student Form
3. View Additional Videos or Resource Materials
4. Reflections

We utilized a case study model that was publicly available to use at the AACN website in 2020, located under:
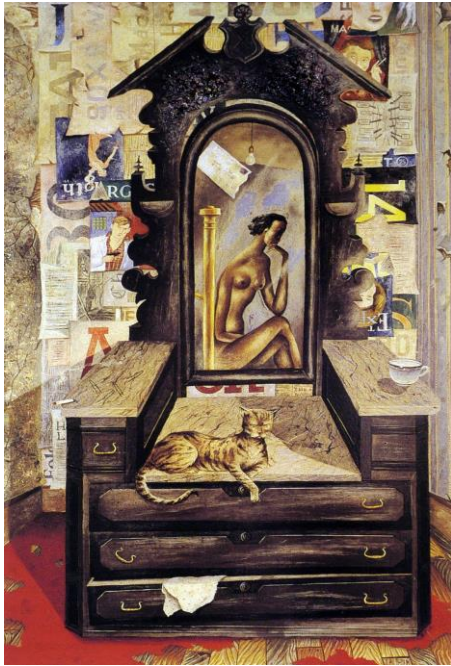**Academic Nursing > Population Health > Population Health Nursing Resources > Social Determinants of Health Case Studies.**

WHAT WE DID

- Developed integrated case studies in their context to accomplish uptake of Domain 8 and present them to students during class lessons or clinical preparation.
- Used reflective exercise to induce clinical reasoning
- Noted that non-informatics faculty must also understand Domain 8 in order to create such case studies.

REFLECTION

REFLECTIVE PROCESS

- The experience of the situation
- The implications of the situation
- The action plan

Rolfe et al's (2001) reflective model

University of Edinburgh, Reflection Toolkit

https://www.ed.ac.uk/reflection/reflectors-toolkit/reflecting-on-experience/what-so-what-now-what

What?

So What?

Now What?

RESULTS

- Faculty can replicate the process for developing integrated case studies to accomplish uptake of Domain 8 and present them to both entry to practice and advanced levels of students during lessons or clinical preparation

- Showed how the competencies of Domain 8 are distinct from the other Domains but support all other Essential nine Domains in 21st century interdisciplinary practice and nursing.

- Non-informatics faculty must understand Domain 8 in order to create such case studies

LIMITATIONS

- Faculty development in informatics, digital health, and technologies is a necessary and essential component to the integrated case study development process

- Faculty assessing own competence in informatics, digital health and technologies is challenging due to gaps in tools for this type of assessment.

- Tools for faculty development in informatics, digital health and technologies are available from various sources though determining currency and consistency is a must

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IMPLICATIONS FOR PRACTICE
LESSONS LEARNED

- Faculty development in informatics, digital health, and technologies is a necessary and essential component to the case study process
- A case study approach can accelerate the integration of a multi-faceted topic into nursing education and practice
- Faculty can create their own case studies for their SON context and need support to learn how to create them
- Application of the developed case studies can be included in virtual learning, in the classroom, & integrated into simulations
- Remember to map in the Four Spheres of Care, Systems Based Practice, and Evidence Based Practice

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CONCLUSIONS

- Nursing education is dense with concepts and skill-sets and thus integrating Domain 8 competencies directly into the critical thinking process with plausible or real practice case studies for students in various classes and settings will foster seamless learning of all Domains and the Four Spheres of Care, Systems Based Practice, and Evidence Based Practice.
- Case studies can be created once and used across the curriculum in different ways (didactic, clinical, simulations)

LOOKING FORWARD TO YOUR QUESTIONS AND COMMENTS

RESOURCES

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