



Bridging the Divide with Interdisciplinary Courses

Presentation by:

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Overview:

Ms. Cathy Robinson, Assistant Professor for MLT/MLS and Dr. Cathy Cormier, Chair Department of Nursing collaborated to plan / implement a one day seminar designed to:

- Enhance role awareness and communication skills among MLT and ASN nursing students
- Seven CLT and four fundamental nursing students agreed to participate
- Central Louisiana AHEC supported the program by providing funds for lunch, supplies, and a \$50 stipend for each participant

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Methodology:

- Students asked to complete anonymous survey to evaluate pilot program at the end of the day
- Students encouraged to provide feedback on learning activities for program improvement
- Paper evaluation distributed to participants during last 20 minutes of program, after which both faculty left the room
- Response rate: 100% (n=11)

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Nursing Programs

2-Year RN

4-Year RN-BSN

Enrollment:

60 RN students / year

Xx RN-BSN / year

Laboratory Programs

2-year CLT

4-Year MLS

Enrollment:

8-10 MLT / year

23-25MLS / year

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Discussion Began in 2010!

Nurse Cathy:

“You know- nursing and lab should develop a combination course to benefit our students “



Lab Cathy:

“You know- Our lab and nursing students would benefit from a combination course”

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Discussion in 2016!

Nurse Cathy:

You know- nursing and lab should develop a combination course to benefit our students



Lab Cathy:

You know- Our lab and nursing students would benefit from a combination course

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University Processes

- Write MCO and objectives
- Present to department for approval
- Present to /Courses and Curriculum for review and approval
- Identify faculty and involve them in process
- Select course delivery design/time frame:
 - Face-to-face?
 - On-line?
 - Seven-week or 16-week time frame?
 - Promote and schedule course?

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Challenges Encountered:

- Faculty workload increased
- Faculty free time decreased
- Lab Cathy became International Laboratory Trainer
- Time flies when faculty positions cut, no raises, more work
- Every process that requires approval takes TIME

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August 2016:

- Nurse Cathy and Lab Cathy met & agreed:



Now is the Time to Develop This Interactive Course

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Why Do We Want to Offer This Course? (It's A LOT of work)

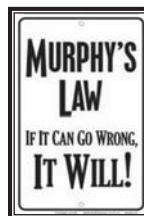
- Identified gaps in student knowledge and skill
- The APACA offers new delivery of patient care
- Health care moving from 'silos of care' to 'continuum patient care team' concept
- Nursing accreditation requires interdisciplinary courses
- Hospitals looking for applicants with interdisciplinary and communication skills

Professional health care skills critical in entry level positions NOT being addressed at the university level

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Murphy's Law

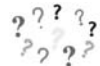
- Interdisciplinary course to be offered fall semester 2016 DIDN'T HAPPEN
- BUT... we were excited to share the course at both Nursing and Laboratory conferences so we submitted an abstract to CLEC
- YEP – abstract accepted!
- Agreed a Pilot Program would provide information on how to proceed with course design
- Held Lab – Nurse Pilot Seminar December 16, 2016



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Pilot Seminar Organization

- Number of students seminar could accommodate?
- Pre-requisites for student participants?
- **Funding resource for seminar???????**
- **Pick a date when everyone is free???????**
- Include students in planning to get buy-in?
- Started at 5-day – ended with 1-day seminar?
- Students chose Dec. after finals over Jan. before classes?
- Topic selection and Agenda?
- Location?



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Topics Selected:

- **Process Mapping:**
 - Track a Specimen Through the Laboratory
 - Pre-analytical, analytical, & post-analytical processes
 - Who is responsible, what happens, procedures needed, & pitfalls
- **Communication:**
 - Verbal, non-verbal, written
 - SBAR communication guidelines
 - AIDET communication guidelines
 - Read-back reporting protocols

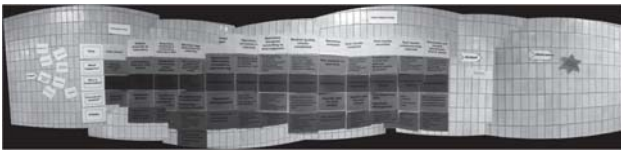
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Topics Selected:

- **Phlebotomy Lab:**
 - Order of Draw
 - Tubes and anticoagulants
 - Practice
- **Therapeutic drug levels**
 - How, when, and why to draw trough and peak levels
- **Case Study**
 - Developed to include all topics
 - Used nursing 'lab room' with multiple patients and beds
 - Arranged teams of 4: 2 nursing & 2 lab students / team
 - Interaction with patient and with each other
 - Videoed student interaction and provided feedback

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Process Mapping



1. Step Cards
2. What Happens?
3. Who is Responsible?
4. Procedures Needed
5. Pitfalls

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Placing Quality Indicators on Process Map



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Communication:



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SBAR Communication

(Situation-Background-Assessment-Recommendation)

S	
B	
A	
R	

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AIDET Communication



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Lunch Provided by CLAHEC

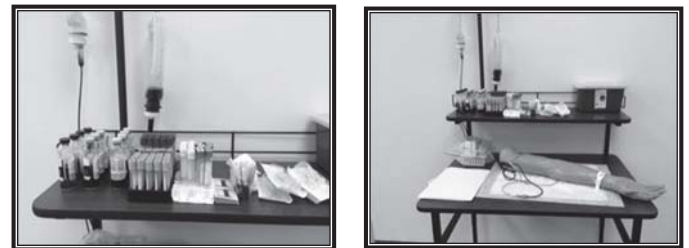


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Phlebotomy: Order of Draw & Anticoagulants



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Phlebotomy



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Phlebotomy Demonstration



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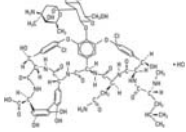
MLT Students Share Phlebotomy Knowledge



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Therapeutic Drug Levels: Vancomycin

- Delivery
- Dosage
- Contra-indications
- Red-Man Syndrome
- Trough and Peak specimens



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Case Study

- 67 year-old male with complicated cellulitis
- Clindamycin prescribed – 300 mg x 4/d
- Patient returned to clinic twice w/ worsening condition
- Culture grew *S. aureus*
- Prescribed Vancomycin – self-delivered at home with training via Home Health
- Mock patient chart w/ vital signs, lab reports, & pictures

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Case Study Pictures



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Role Play Patient Interaction, Effective Communication, & Feedback



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Survey Questions and Responses:

1. Why did you volunteer to participate in this Pilot Program?
 1. To receive a stipend
 2. Personal interest in interdisciplinary course structure
 3. Other (please explain)
 4. No response

Responses (n=10, no response from 1 student):

- One student circled choices 1, 2 & 3
- Six students (55%) chose only response # 2
- Four students provided the following comments:
 - To work w/ nursing students/develop relationship/learn from each other
 - Decrease animosity between nurses & lab; plus stipend
 - Take advantage of opportunity to become a better nurse

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Survey Question # 2:

Indicate Your Rating of the Following Presentations using a 4 point Likert Scale

Presentation:	Rating:
Process Mapping	Strongly Agree 100% (n=11)
Communication	Strongly Agree 100% (n=11)
Phlebotomy	Strongly Agree 100% (n=11)
Therapeutic Drug Monitoring	Strongly Agree 100% (n=11)

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Survey Question # 3:

Indicate Your Rating of the Following Learning Activities using a 4-point Likert Scale

Learning Activity	Rating
Process Mapping: Quality Indicators and Team Discussions	Strongly Agree 100% (n=11)
Simulation S-BAR Communication	Strongly Agree 100% (n=11)
Simulation AIDET Communication	Strongly Agree 100% (n=11)
Phlebotomy Hands-on Practice	Strongly Agree 100% (n=11)
Lab Draw Simulation	Strongly Agree 100% (n=11)
Phlebotomy- Order of Draw / Tube Additives	Strongly Agree 100% (n=11)
Therapeutic Drug/Vancomycin Simulation	Strongly Agree 100% (n=11)
Summary / Reflection of Learning	Strongly Agree 100% (n=11)

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Survey Question # 4:

Indicate Your Response to the Questions Below

Question	Strongly Agree	Agree
Did you enjoy working as a member of an interdisciplinary team?	100% (n=11)	
I would register to take a similar course if it were offered at LSUA	91% (n= 10)	9% (n=1)
Participation in this program was worth my time	100% (n=11)	
I would recommend this program to other students	100% (n=11)	
Program handouts facilitate learning	100% (n=11)	

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Survey Comments from Students

- Beneficial for nurse/MLT students b/c it shows how much interaction happens between both departments. Loved how everyone learned from each other in phlebotomy and communication skills
- This was an amazing experience. I feel more confident communicating with lab students & other nursing students
- Definitely recommend course to others. Fun getting to interact w/ nursing students (learn from & teach). Loved learning about Vancomycin drug therapy. Nice to develop relationship with other health professionals
- Loved hands-on aspects and feel I learned a lot. Enjoyed seeing some of the different ways lab and nurses collaborate on patient care

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Survey Comments from Students

- I liked learning phlebotomy as a nursing student. It's cool to learn another skill and I liked the hands-on experience
- I liked the small teams, the case studies, & will recommend this course to my friends
- Found this helpful. Liked interacting with nursing students and see what they do, their role that correlates with lab
- Loved the packets and pictures in the Case Study folder. This was a real life situation we worked through. Before this, I had no idea of nurse's role and what they did. Loved learning about S-BAR & AIDET communication
- Loved Process Mapping and hands-on chart stuff (quality indicator arrows)
- Loved learning everything the lab does to report accurate result

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Metrics Used and Outcomes:

- Number of students = 11
- Number students completing evaluation = 11
- Student prerequisites:
 - Personal interest in course
 - Nursing students – completed Nursing Fundamentals
 - MLT students – none- asked to participate
 - All core courses
 - MLT Intro, Hem I & II, Immunology, Immunohematology, Cl. Chem I, Parasitology, Phlebotomy
 - Good academic standing in each discipline
- Active participation
- Completion of seminar evaluation

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Student Recommendations:

- **Offer face-to-face class in summer b/c less pressure**
- Loved role play and how the MLT students taught nursing students how to perform phlebotomy -needs much interaction
- Learning and then practicing interaction beneficial – it's easier to appreciate importance of working together. Keep reflection
- Process Mapping was first & gave us overview of how many steps there are and the responsibilities at each step in "Tracking a Specimen". This topic should be in the final course composition.
- Prerequisites for:
 - Nursing students – completed Nursing Fundamentals
 - MLT students – completed Introduction to MLT
- All students receive stipend and recognition (good on resumes)

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Muddy Points:

- **“I think it is unclear from the nurse perspective that med techs don’t just push buttons and that everything is not automated. Even with automation, the lab technologist has to know what the instrument is doing, run & monitor QA prior to running patient specimens, and interpret results”**
- Everything is clear (n=5, 45%)
- Process Map- what do we do if we have a pitfall?
- Not sure how to use quality indicators
- What on the nurses’ side is done to improve TAT?
- How exactly, are specimens accepted or rejected?
- How are equipment down times handled?

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Faculty Evaluation and Conclusion:

- Seminar date selected. With small numbers (n=11) difficult to draw conclusions regarding seminar, though some info can be gleaned
- National Patient Safety Standards support opportunities for students to develop skills in interdisciplinary patient centered care
- Students rated hands on learning activities favorably and ‘strongly agreed’ recommendation to other students
- Though small numbers, survey results suggest MLT/nursing students should be provided intentional learning opportunities to interact with each other & gain greater appreciation for each other’s role in patient care

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Faculty Evaluation and Conclusion:

- Specific student recommendations regarding transitioning seminar into course for academic credit
- Three students (27%) felt course should be face-to-face. Another 6 students agreed verbally but not on evaluation form
- Nursing students felt summer was better time to offer course as course load is lighter
- Stipend not sole reason for participation, but was a draw
- Survey suggests repeat seminar w/ more students to determine effectiveness

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Summary of Evaluations: Challenges Encountered

- Procrastination on our part
- Variance in student academic background
- Coordination of course topics with courses students currently enrolled in / completed
- Better time management
- Determine delivery time frame for course (# weeks)
- Already approved – but.....
 - Select course title and number (problematic)
 - What semester to offer for 1st time
 - Develop MCO / objectives / Case Study Scenarios
- Researching programs to add course as an elective

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Next Steps:

- Second seminar planned for summer 2017
- Develop next set of topics with additional faculty
- Invite faculty to deliver lecture & lab presentations
- Gain funding for second seminar
- Maintain 18-20 students – 9-10 from each program
- Determine delivery time frame for course (# weeks)
- Already approved – but.....
 - Select course title and number
 - What semester to offer for 1st time
 - Develop MCO / objectives / Case Study Scenarios
- Invite community health professionals to observe/participate and offer feedback

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Questions and Comments:



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