

# Collaborative coursework: An effective teaching model to improve nursing students' translation of evidence into practice

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# Disclosures

- There will be no discussion of off label use or investigational use of any product in this presentation.
- There are no financial relationships to disclose.
- There are no conflicts of interest to report.



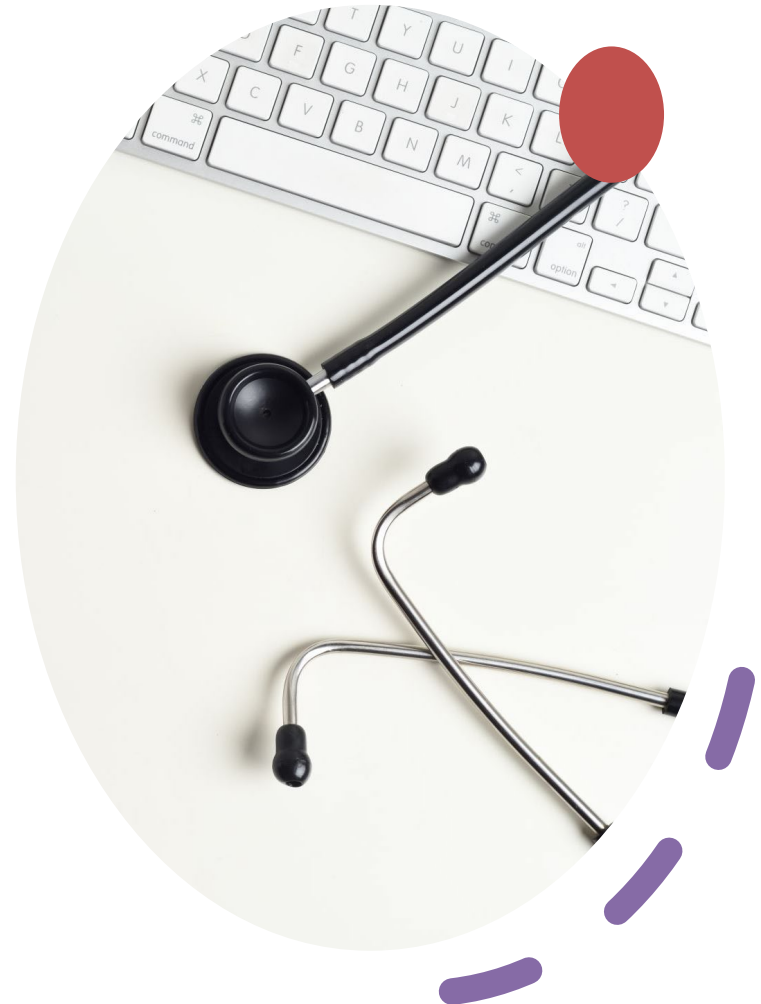
# Objectives

- Discuss the integration of a collaborative evidence-based practice (EBP) project in a traditional baccalaureate nursing program.
- Examine the effect of a collaborative EBP project on the frequency of use of EBP, attitude toward EBP, and knowledge & skills related to EBPP among senior level nursing students.



# Background

- Pedagogical strategies: didactic instruction with clinical experience.<sup>1</sup>
- Traditional delivery of content in research and evidence-based practice (EBP) often lacks a theory-to-practice integrative approach.<sup>1</sup>
- Student engagement in the EBP process may lead to better comprehension of the relevance of research findings.<sup>1</sup>



# Literature Review

Common barriers related to nursing students' use of evidence in clinical education:<sup>1</sup>

- Limited knowledge & skill set
- Poor attitude towards EBP
- Faculty knowledge<sup>2</sup>

Barriers to implementing EBP cited among licensed nurses:<sup>3-5</sup>


- Workload (lack of time)
- Lack of knowledge
- Lack of mentors
- Lack of organizational support

# Course Collaboration

- **Who** – Senior level BSN students
- **What** – EBP project with poster dissemination
- **How** – Collaborative coursework NURS 403 & NURS 405
- **Why** – Actively engage in the learning process and to enhance comprehension of the relevance of research findings



# Integration of Course Content

- **NURS 403 Maternal-child course**
    - Maternal-child issue
      - Current professional practice recommendation, committee opinion, or policy statement
  - **NURS 405 EBP-Research course**
    - PICOT question
    - Literature review (article review)
    - Literature synthesis paper
    - Literature matrix table
    - Abstract
    - Reference list
- 

## Poster Content Outline NURS 403


- Title
- Recommendation or Protocol
- Background & Significance of the Problem
- Literature Review
- Summary of the Evidence
- Current Practice
- Clinical Considerations
- Recommendations for Future Practice

## EBP-Research Topics

- LGBTQ students: The role of the school nurse
- Use of medical marijuana for neurologic disorders in the pediatric population
- Breastfeeding recommendations for women who receive medication-assisted treatment for opioid use disorders



# Role of Clinical Faculty Mentors

- Students are assigned to clinical groups
  - Each clinical faculty mentor guides two student groups
    - Action plan for EBP
    - PowerPoint slides through Literature review including reference slides
    - Remaining PowerPoint slides
    - Final draft of poster
    - Printed poster
    - Poster presentation
- 

# Project Dissemination



## Overweight Children and Adolescents

University of Louisiana at Lafayette - College of Nursing and Allied Health Professions



### Background & Significance

- In the past 30 years, childhood obesity has more than doubled, while the amount of obese adolescents has quadrupled, creating a large percent of the pediatric population being at risk for chronic diseases into adulthood (12).
- Body mass index (BMI) is a person's weight in kilograms divided by the square of his or her height in meters (15).
- Obesity in ages 2-19 is defined as a BMI that is at or above the 95th percentile on a growth chart (12).
- BMI can be used to screen weight categories that may lead to health problems (15).
- Due to the high levels of morbidity and mortality, pediatric obesity is considered a major public health concern in the United States. Approximately 34% of American children are affected by obesity resulting from an increased intake of fatty foods and a high sugar diet and lack of physical exercise (18).
- Long term health problems related to obesity include heart disease, hypertension, bone and joint problems, type 2 diabetes, asthma, and many more chronic diseases (2).

### Position Statement

The Society of Pediatric Nurses (2017) recommends primary prevention measures to prevent obesity for all children starting at birth.

### Literature Review

Databases: Google Scholar, PubMed Central, Cochrane Library, MEDLINE, EBSCO

Levels of Evidence: 16 total sources of evidence

(5) Level I Systematic Review and Meta Analysis

(2) Level II Randomized Control Trials

(3) Level IV Cross Sectional Survey

(1) Level VI Case Series Studies

(5) Level VII Reports of Expert Committees and Literature Review

Keywords: overweight; children; adolescents; obese; pediatric(s); body mass index; prevention; chronic disease(s); adiposity; clinical practice; (south) Louisiana; United States, lifetime medical cost, cost of illness

Inclusion criteria: English language, pediatric populations, full-text, peer reviewed

Exclusion criteria: Articles before 2013

### Summary of Evidence

- Early education on the importance of physical activity and healthy eating patterns, along with motivational interviewing, has proven to decrease a child's BMI in the future (5).
- Educating on preventative measures to children in the school system can prevent childhood obesity (17).
- Family interventions that include behavioral lifestyle changes such as, eating meals as a family, have shown to decrease childhood obesity (7, 8).
- One single intervention may not be adequate to reach the Healthy People 2020 goals. Significant improvement could be made with multiple combinations of practical policy and environmental changes (16).
- Multicomponent interventions such as, physical activity, behavior therapy and low-calorie diets provide a successful decrease in weight loss and maintenance (2).
- Non-Hispanic Asian youth had the lowest prevalence of obesity (10).
- There were no significant difference in obesity prevalence between children and adults (12).
- Racial and ethnic minorities have the highest obesity rates, this includes people living in low-income neighborhoods and people living in the south (11).
- Those who were raised by college graduated guardians presented lower prevalence of obesity than those who were raised by lower educated guardians (15).

Figure 3. Prevalence of obesity among youth aged 2-19 years, by sex and age United States, 2010-2016

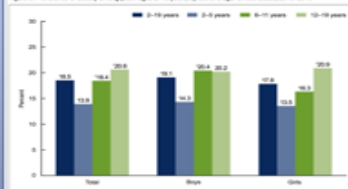


Figure 5. Trends in obesity prevalence among adults aged 20 and over (age adjusted) and youth aged 2-19 years United States, 1980-2016 through 2016-2018



### Current Practice:

#### Local:

- The Lafayette Parish School Board claims that their nutrition standards follow the guidelines set by federal and state agencies (9).
- All food and beverages sold/provided by schools located in Lafayette Parish meet the guidelines set by the Healthy Hunger Free Kids Act of 2010 and the USDA Smart Snacks in School Law (9).
- Lafayette Parish School System promotes healthy eating by providing educational material to parents, such as Choose MyPlate, Eatright.org, and Team Nutrition from the USDA website (9).

#### State:

- In 2017, 57 pediatric providers, located throughout Louisiana, were surveyed to determine the current practices for screening and treating pediatric obesity.
- 88% of the providers reported screening their patients for obesity as part of a regular child visit (14).
- 63% of the providers reported that they also screen for type II diabetes mellitus (14).
- However, the survey shows that although they were screened, most of the obese patients did not receive adequate treatment. Only 1 of the 57 providers offered a multi-component obesity intervention treatment with appropriate duration and contact hours (14).

#### National:

- There are many programs that aim to prevent childhood obesity in America, such as the Whole School, Whole Community, Whole Child (WSCC) model, the Let's Move! initiative, and various nutrition policies that set guidelines for schools to promote healthy eating through school lunches.
- The WSCC model includes 10 educational components designed to improve learning and health in schools around the country. A few of the components include health education, physical environment, and health services (4).

#### International:

- The prevalence of pediatric obesity has increased internationally, similar to the United States. International recommendations state that children of school-age should receive 30-60 minutes of moderate physical activity a day and about 60 minutes of aerobic physical activity today (13).
- In conclusion, there are several interventions that are used worldwide to prevent and treat pediatric obesity, but a comprehensive, multicomponent intervention seems to have the highest success rate with better outcomes for the patients (13).

### Clinical Considerations

- Improved reimbursement is required for effective family and school-based health programs (18).
- Public health initiatives are required to make affordable, healthy foods available, and initiatives in education and community planning are necessary to encourage and facilitate exercise on a daily basis (18).
- In primary care settings, some interventions promote changes in diet, physical activity, or television viewing (5).
- Childhood obesity is extremely costly. An estimate of \$19,000 is the incremental lifetime medical cost of an obese child relative to a normal weight child who maintains normal weight throughout adulthood (6).
- In 2010, the California Endowment announced a 10-year, \$1-billion program to build health-promoting communities across the state, partly in efforts to address childhood obesity. The federal government and many state and local governments have also allocated resources directly for childhood obesity prevention efforts (6).
- Primary care settings are important to provide basic messages pertaining to healthful dietary and physical activity behaviors (5).

### Conclusions

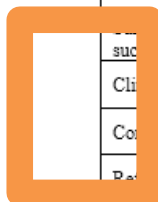
- The national and international current practice is reflective of the evidence by providing educational components such as health/physical education, and health services (4).
- The CDC also recognized and apply multicomponent interventions for a more effective way to prevent and decrease obesity in children (13).
- Local nursing practice is consistent with evidence-based practice such as: Choose MyPlate, EatRight.Org, and Team Nutrition from the USDA website by providing educational material and family interventions to parents in the school system (9).
- It is recommended that future research provide more focus on the reduction of sedentary time/screen time and on the increase of physical activity to prevent/decrease childhood obesity in children.
- Research for childhood obesity should continue to be conducted in the future to provide multicomponent interventions for all health care professionals to include in their practices.

# Evaluation of EBP Poster

## Evaluation of Evidence-Based Practice Presentation Grading Rubric (100 points)


...ion will be graded by all N403 faculty members.

Essentials (15 points) Rate the level at which the presentation contains:	Present 5 points	Absent 0 points	
Affiliation and UL CONAHP seal			
Spelling, grammar, APA citations			
Overall Appearance (20 points) Rate the level at which the:	5 points	3 points	1 point
Presentation holds the viewer's attention and displays overall professionalism			
Text, graphics, pictures, and charts are relevant/contribute to the topic and are appropriate for the audience			
Text is legible from 5 feet			
Overall content is logically arranged/organized to depict the process			
Content (45 points) Rate the level at which the:	5 points	3 points	1 point
Title reflects the essence of the project			
Recommendation/protocol is identified and explained with appropriate professional organization(s) identified			
Background and significance of the problem are clearly identified			
Current clinical practice is summarized			
Literature review is concisely displayed			
Summary of evidence related to the recommendation/protocol is succinctly presented			
Clinical practice considerations are described			
Conclusions related to the evidence for this issue are provided			
References are presented in APA format			
Presentation/Professionalism (10 points) Rate the level at which the:	5 points	3 points	1 point
Authors are knowledgeable about the subject matter and able to answer questions			
Authors present themselves professionally			
Presentation Points (90 points possible)			
Quality of draft submissions (5 points)			
Adherence to deadlines (5 points)			
<b>TOTAL PROJECT POINTS</b>	____ / 100		



# Purpose of the Study

Examine the effects of a collaborative EBP project across a maternal-child nursing and a co-requisite EBP research course among senior-level nursing students enrolled in a traditional baccalaureate nursing program on the frequency of use of EBP, attitude toward EBP, and knowledge & skills related to EBP at the beginning and the end of the semester.



# Methods



Institutional Review Board approval



In-person invitation with concurrent review of consent form



Course performance/withdrawal without repercussion




No incentive (payment or extra points)



Inclusion criteria


# Data Collection & Measures

- Pre-posttest design
  - Student Evidence Based Practice Questionnaire©  
(Chronbach's alpha 0.76 – 0.96)<sup>2</sup>
  - Primary outcome measures:
    - Frequency of use of EBP
    - Attitude toward EBP
    - Knowledge & skill in EBP
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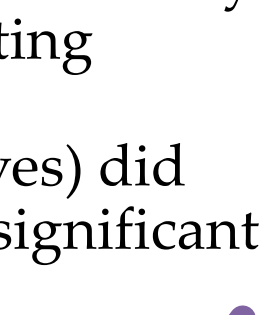
# Statistical Analysis

- A prior power analysis
  - Alpha 0.05
  - Power 0.80
  - Medium effect size  $d = 0.4$
  - Paired  $t$ -test
    - Desired sample  $n = 41$

A total of 56 students  
participated in this  
study



# Results

- Pre versus post-test mean scores for all primary outcome measures ( $p < .001$ )
    - Subscale categories
      - Finding evidence ( $p < .001$ )
      - Sharing outcomes with peers ( $p < .001$ )
      - Changes in practice because of found evidence ( $p = .044$ )
  - Gender and previous/current history of working the hospital setting (which may have exposed participants to EBP initiatives) did not reveal any statistically significant differences.
- 



# Conclusions

- EBP is an important facet of nursing education.
- Active student participation is a difficult endeavor to achieve.
- Implementing an experiential learning project coinciding with the focus of the semester's patient population may be an effective tool to engage students in the process of examination and utilization of evidence.



# Take Home Message

Increasing awareness of & involvement in EBP among nursing students during their formal education & training may place them at an advantage as they progress to the workplace.



# Thank You for Your Time and Attention!!!

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