"Enhancing utility and understanding of evidence based practice through undergraduate nurse education"

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Introduction

* The concept of evidence-based practice is very relevant in the current societal and healthcare climate

* New undergraduate Evidence Based Practice modules commenced in October 2014 with 3 distinct modules (Evidence Based Nursing (EBN) 1, 2 and 3)

* Teaching and assessment are structured to make the principles and process of evidence-based practice meaningful for students

* This study seeks to formally evaluate these modules through eliciting the attitudes and beliefs, knowledge level and utilization of evidence-based practice of undergraduate student nurses
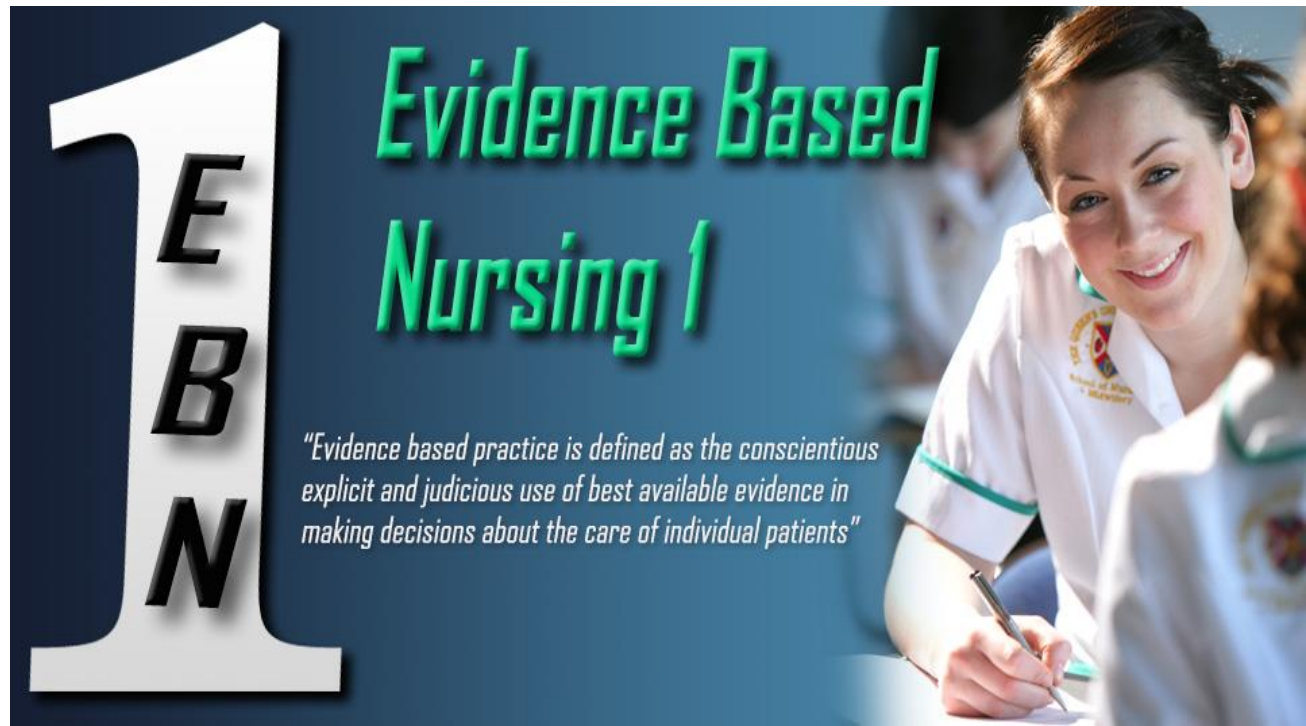
Background

* Evidence Based Nursing 1 co-ordination and PI on research project

* EBN 1

  * Lectures

  * Tutorials

  * eResource

EBN 1 — Evidence Based Nursing 1

"Evidence based practice is defined as the conscientious explicit and judicious use of best available evidence in making decisions about the care of individual patients"

Aim and Objectives

* **Aim**
  * The overall aim of this project is to foster a culture of evidence-based practice at undergraduate level and beyond through specifically tailored teaching and assessment methods implemented within the School of Nursing and Midwifery.

* **Objectives:**

  * To ascertain the attitudes and beliefs, knowledge level and utilization of evidence based practice of undergraduate students prior to undertaking evidence based practice training (prior to Evidence Based Nursing 1 Module)

  * To measure the effect of evidence-based practice focused teaching initiatives (Evidence Based Nursing Modules 1-3, one completed each year of their training) implemented on these variables at the end of year 1, 2 and 3.

Methods

* Commenced September 2014 (Ethical approval granted August 2014)

* Quantitative
  * two validated scales (Evidence Based Practice Beliefs Scale© (EBPB) and Evidence Based Practice Implementation Scale© (EBPI)

* Sample
  * Non-probability convenience sample

* Data collection points
  * (1)Pre EBN1, (2)Post EBN1, (3)Post EBN2, (4) Post EBN3

* Students emailed invitation letter and anonymous data collection via survey monkey

* Analysed in SPSS – non-parametric analysis

First results (pre and post EBN1)

* September 2014 intake

* 311 undergraduate nursing students

* Pre EBN 1 data collected in September 2014

* Post EBN 1 data collected in August 2015

Results – overview of students

Pre-EBN 1 (n=124)

Gender	N(%)
Female	116 (93)
Male	8 (7)
Age	N(%)
18-24	81 (65)
25-24	29 (23)
35-44	11 (9)
45-54	3 (2)
Specialism	N(%)
Adult nursing	75 (60)
Children's nursing	22 (18)
Mental Health nursing	17 (14)
Learning disability nursing	10 (8)

Post-EBN1 (n=56)

Gender	N(%)
Female	51 (93)
Male	4 (7)
Age	N(%)
18-24	36(64)
25-24	16(28)
35-44	2(4)
45-54	2(4)
Specialism	N(%)
Adult nursing	30(54)
Children's nursing	9(16)
Mental Health nursing	15(26)
Learning disability nursing	2(4)

Data management

* Data collected via Survey monkey

* Exported to Excel

* Imported to SPSS

* Data subjected to Mann – Whitney test

Results

* Overall positive results

* Evidence Based Practice Beliefs Scale
    * Statistically significant results in 7 out of 16 categories

* Evidence Based Practice Implementation Scale
    * Statistically significant results 13 out of 18 categories

Learning outcome from module proforma	Research Scale and Question which measured learning outcome EBP Beliefs Scale, EBPBS EBP Implementation Scale, EBPIS	pre-post test analysis (Mann-Whitney Test)
Understand the meaning of evidence based practice	EBPBS, Question 2- I am clear about the steps of EBP	p=<.001
Develop an awareness of application to practice	EBPIS, Question 14 - Used EBP guideline EBPIS, Question 18- Promoted the use of EBP	P=.005 p=<.001
Consider why professional nursing practice has to be evidence based	EBPIS, Question 1 - Use evidence to change my practice EBPIS, Question 6 - Shared evidence with colleagues	p=<.001 p=.006
Understand the concept of hierarchy of evidence	EBPIS, Question 12 - Accessed Cochrane EBPIS, Question 13 - Accessed National Guideline	p=<.001 p=<.001
Create a well-built clinical question using the PICO formula	EBPIS, Question 3 - Generated PICO Question	P<.001
Gain a basic understanding of the nursing information environment	EBPBS, Question 12 - I can access best EBP resource EBPBS, Question 14 - I know how to implement and effect practice changes	P=.012 P=.007
Understand basic data gathering and analysis methods	EBPIS, Question 11 Read and critically appraised a study	P<.001
Explain the decisions that influence the choice of methodological design	EBPIS, Question 2- Critically appraised evidence EBPBS, Question 12 - Critical appraisal is an important step	P<.001 P=.005

Limitations

* Can't be sure that the people who provided data at follow-up actually gave baseline data

* Responders may not be typical of the class as a whole

* Cannot look at individual pairs but have to look at pre and post groups the study may be under-powered

* Nonetheless, EBN1 module has a major impact on EBP beliefs and implementation scores, which have direct applicability to the learning outcomes of the module

Moving forward

* Data collection is ongoing until 2020

* This was the first year of EBN1

* Changes have been made to content for September 2015 intake
  * Comparison with September 2014 / 2015 intakes (pre and post EBN1)

* Changes over time
  * Completion of EBN2 and EBN3

* One university
  * Colleagues in Dublin also collecting this data pre and post EBN module – comparison across two countries, different health / educational jurisdictions

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