

Engaging DNP Students with Real-Life Data Analysis: Not Your Ordinary Statistics Course

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Objectives

Participants will be able to identify innovative teaching strategies that can be used to teach students how to decipher data, manage data, and interpret results, from quality improvement initiatives in nursing practice.

Participants will identify the benefits of utilizing live data from real organizations to engage students in meaningful learning experiences.

Overview

- Faculty Summit
- Innovative Strategy
- Student Engagement
- Utilize Real-Life Information – Model Practice
- Meaningful Learning

Sentinel Health DataLab™

- 40 De-identified Regional Hospitals
- Hospital Overview
 - Number of Beds
 - Affiliated Physicians
- Financial Data
 - Net Patient Revenue
 - Total Overhead Costs

Sentinel Health DataLab™

- Hospital Claims
 - Medicare Charges
 - ICD-9, ICD-10
- Quality
 - Injuries - Falls
 - Infection Rates
- Historical Data up to 3 years – updated yearly

Sentinel Health DataLab™

- 40 hospitals
- Geographically dispersed
- For-profit/non-profit
- Various bed count



Hospital List

Hospital ID	State	Total Discharges	Total Staffed Beds
205	AZ	7,201	227
207	AZ	21,277	479
430	CA	55,693	879
651	CO	12,890	183
845	FL	56,824	1,485
892	FL	12,115	182
1073	HI	1,789	33
1095	ID	9,519	237
1637	KY	10,666	148
1862	ME	20,691	313
1984	MA	7,746	115
2076	MI	10,310	197
2152	MN	22,808	398
2272	MS	22,235	430
2357	MO	1,696	35
2442	MO	50,217	1,225
2451	MT	6,888	88

Report List

Hospital Overview

Hospital Financial Clinical Overview

Hospital Claims Overview

Quality Overview

Net Patient Revenue	Medicare VBP Performance Score	Outpatient Market Share	Estimated IT Capital Budget	Falls and Trauma Rate
\$22,470,668,759	33.8	42.2%	\$272,429,415	0.407
Net Operating Profit Margin	HCAHPS Summary Star Rating	Inpatient Market Share	Open Payments in Research	Falls and Trauma Percentile
0.8%	3 ★	43.5%	\$116,062,079	47

Teaching Statistics without Sentinel Health DataLab™

- Follow the procedures in the section on independent samples t-tests to compare the mean sleepiness ratings (Sleepiness and Associated Sensations Scale total score: *totSAS* for males and females (*gender*)).
- Is there a significant difference in mean sleepiness scores?
- Use the template on page 248 under the heading *Presenting the results for independent-samples t-test* to present your analysis.

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Your organization, XYZ hospital, has just finished with a quality improvement project focused on impacting fall rates on the Medical Surgical Units. The pre-implementation timeframe was June 2018, implementation occurred during the Month of July 2018, post-implementation timeframe is August 2018.

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Research Question: Did the implementation of a fall-risk quality improvement project impact the fall rates for the Medical Surgical Units at XYZ hospital?

Hypotheses:

H_1 : The implementation of a fall-risk quality improvement project impacted the fall rates for the Medical Surgical Units at XYZ hospital.

H_0 : The implementation of a fall-risk quality improvement project did not impact the fall rates for the Medical Surgical Units at XYZ hospital.

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For this assignment:

1. Gather the fall rate data for the pre-implementation and post-implementation timeframes for the quality improvement process and place the data in the excel spreadsheet provided. Typically, at this point you would run normality statistics, but for this assignment we will assume data is normally distributed and meet the assumptions for a parametric test.
2. Run an independent t-test on the data and calculate effect size.

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3. Write up the analysis using the template presented in your textbook.
4. At the end of the analysis, answer the research question and accept or reject the null hypothesis.
5. Make sure analyses are APA formatted and that you are following APA rounding rules.

Integration throughout the DNP Program

Nursing Informatics

Leadership

Quality Management

Finance & Fund Development

AACN Essentials of Doctoral Education for Advanced Nursing Practice

Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

Essential IV: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care

Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health





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