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Teaching Q Methodology to Baccalaureate Nursing Students

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Background: There is a growing professional emphasize on providing patient-centered care, but teaching patient-centered research methods in nursing curricula is far from routine. Q methodology is a philosophical framework and set of techniques used to systematically study subjective attitudes, beliefs, and opinions in a way that minimizes researcher bias. Participants actively make their preferences known through a sorting process; then by-person factor analysis is used to find groups with shared viewpoints. Q methodology can be used for research, quality improvement, and program evaluation; but few nurses have a basic understanding of this mixed-method design. The purpose of this project is to describe the implementation and evaluation of a one-day class in a baccalaureate nursing research course created to increase students' awareness of Q methodology.

Methods: Following a brief overview, students actively engaged in a mock Q study by generating opinion statements, known as a concourse, about their K-12 substance abuse education. Then students performed a Q sort and entered data into a web-based program. After reviewing the steps of data analysis, examples of undergraduate honor student Q methodology studies were shared with the group. Content was reinforced as students applied Q methodological principles and techniques to evaluate the class. The project was classified by the university Institutional Review Board as non-human subjects research. Students provided written responses to four evaluations questions regarding impressions of the class and the method to populate the concourse. The following week, students sorted their level of agreement with 35 subjective statements on a +4 to -4 grid. Anonymous data were analyzed with PQ Method software using centroid factor analysis and varimax rotation.

Results: Thirty-three sorts resulted in a four-factor final solution that explained 45% of the variance: *General Confusion* (N=6), *Seeing Usefulness* (N=3), *Valuing Practice* (N=8), and *Ambivalence to Research* (N=11). The most favorable attitudes were found among the *Seeing Usefulness* group who perceived that Q methodology was a good way to do patient-centered research and find opinions. Overall, the interactive format (1, 1, 3, 4) and participating in the step-by-step mock study (0, 2, 4, 2) were positive aspects of the class. Perceiving that the session would have better with prior knowledge (4, 0, 3, 3) and that there was too much to learn in one session (3, -2, 0, 4) represented areas for improvement.

Conclusion: This was the first study to explore outcomes from teaching Q methodology to undergraduate nursing students. The findings reinforce the best teaching and learning practices of exposing students to content prior to class and using active learning strategies. What this study adds to the literature is that teaching undergraduate students about Q methodology can generate interest in alternative approaches for studying subjectivity in nursing practice. More research is needed to understand optimal content exposure.

Title:

Teaching Q Methodology to Baccalaureate Nursing Students

Keywords:

Nursing Research, Program Evaluation and Q methodology

References:

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Abstract Summary:

The mixed-method research design, Q methodology, was integrated into a required baccalaureate research course and then used to measure learning outcomes from the class. Four major viewpoints emerged: General Confusion (N=6), Seeing Usefulness (N=3), Valuing Practice (N=8), and Ambivalence to Research (N=11).

Content Outline:

I. Overview of Q methodology

- a. most developed mixed-method
- b. use for research, quality improvement, and program evaluation
- c. limited awareness and use in nursing

2. Explanation of how class was taught

- a. development of course
- b. active sorting
- c. data entry in online program

d. description of analysis

e. examples of student studies

3. Description of how course was evaluated

- a. development of course
- c. data collection and analysis
- d. discussion of four viewpoints

e. Discussion of 2 major areas for improvement

4. Conclusion

a. Findings reinforced need for exposure to content before class and active learning

b. Some students felt they might use Q methodology in future

c. Using Q provided a holistic way to assess student perceptions

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Professional Experience: As a certified nurse educator, my scholarship centers on curricular design and the use of high-impact teaching strategies to help students acquire the profession's knowledge, skills, and attitudes while also more closely examining how nurses define themselves in the 21st century. I have contributed to the science of nursing education through the dissemination of mixed- methods approaches to evaluate learning outcomes and hold unique expertise as a Q methodology researcher.

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