Using the Great Cookie Experiment to Teach Qualitative and Quantitative Research

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References


Background

Research knowledge and its application in the classroom, clinical setting and the community is vital for today’s practicing nurses. The Essentials of Baccalaureate Education for Professional Nursing Practice (AACN, 2008) has laid a foundation for nursing practice which must be guided by evidence based research. However, nursing research concepts are abstract and require innovative techniques by educators to make pedagogy educative and engaging. One such strategy is the Cookie Experiment (Theil, 1987; Breedy & Arsenault, 2000).

Research Methodology

Students in the 5th semester of their undergraduate nursing program (N=34), enrolled in a research course, participated in a classroom activity, involving tasting 2 types of cookies, and answering 3 question sets. Questions were based on Qualitative and Quantitative type of questions, and questions on nursing research based on the activity. Students were asked to describe their “feelings and experiences” after eating both cookies, and rate both on a Likert Scale ranging from 1 (Very Bad) to 5 (Excellent). Students also responded to questions on concepts related to consent, research question for the study, the variables, type of design and data collection techniques used as a part of the study.

Findings / Student Responses

The average rating for the effectiveness of this activity was 7.42 on a 1to 10 Likert Scale, with 10 as highly effective. Some responses by students included the following: “Got to see how all concepts can relate together. Also got to eat cookies which is always a plus!!”, “The activity provided me with examples on how concepts such as blinding, research questions, and research designs are used. This exercise helpful in understanding research concepts.”

Implications

Students have expressed that nursing research can be boring and question the use of research in their practice. This study has shown significant implications in identifying knowledge gaps of nursing students, understanding their attitudes toward nursing research, and helping them understand abstract nursing research concepts using fun, innovative pedagogical approaches.

Example of Research Questions used to help explain Research Concepts to Students:

1. What is the purpose of the study?
2. What are some research questions that could be addressed using this study?
3. What is IRB, and why is it important?
4. What research approach (methodology) was used?
5. What research design was used?
   (true experimental, quasi- experimental, non-experimental)
6. What are some variables we measured?
7. What are some data collection strategies used?
8. Types of scales if any?
9. Was triangulation Used?

References


