Demonstrating the Different Processes of "Sampling" Using M&Ms
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Problem:
One of the integral components of research study design is the concept of sampling. Novice nurse researchers may lack understanding and experience with the use of sampling as a working component of the research process.

Evidence:
Choosing a sampling strategy to ensure that the targeted population is well represented in a study is key to ensuring that findings will be able to be generalized to patients in other settings.

Strategy:
The Great American Cookie Experiment [GACE] Nursing Research Program© in a large healthcare setting in the Southwest offers a series of 14 classes for novice nurse researchers to learn how to develop a research protocol, navigate the IRB process, conduct a study, analyze data, and disseminate study findings. One of the classes provides information about sampling using bags of M&M candies and a set of practical exercises.

Practice Change:
The sampling class provided nurses with a basic comprehensive understanding of sampling strategies by providing hands on experience in sample selection and learning how to justify a sampling strategy in study design. Types of sampling demonstrated in the exercises were: convenience sampling, quota sampling, purposive sampling, single random sampling, stratified random sampling, cluster sampling, & systematic sampling.

Evaluation:
When queried about the sampling class experience in program evaluations, nurses expressed that the M&M exercises were creative, fun, and enhanced learning.

Results:
The hands-on experience of drawing samples from a population comprised of six colors of M&Ms provided visual reinforcement of how different sampling strategies can be used to assure that a study sample is representative of a population.

Recommendations:
Using M&Ms to select a variety of samples provides a non-intimidating activity that can ensure engagement of nurses’ attention and interest and aided in sampling knowledge retention.

Lessons Learned:
Using a convenience sampling strategy does not always offer the most representative sample. Careful consideration of how a sample will be selected can strengthen a study design.

Bibliography: