Research Decisions in Clinical Settings

In this issue, Clark and Mills (2017) described several decisions they had to make during their research on the quality of sleep for hospitalized patients. In clinical settings, researchers must balance producing solid research with the feasibility of the project. Sometimes researchers must make difficult choices. In a former position, I worked as a clinical researcher in a hospital Department of Nursing and the clinicians had to design their studies around the realities of a busy medical center. In this column, I will discuss some of the methodological decisions Clark and Mills made in their study.

The Value of a Pilot Study

Clinician researchers should consider conducting a pilot study as Clark and Mills (2017) did. The purpose of a pilot study is to test the feasibility of a research plan (LaGasse, 2013). By conducting a pilot study, investigators often learn important logistical information. During their pilot study, for example, Clark and Mills (2017) found busy clinical nurses did not have the time to collect data, so the investigators decided to serve as data collectors. One investigator collected data on the day shift and one on the evening shift. Although this was likely the only way to conduct the study, the difficulty is that the investigators could bias the findings inadvertently (McCusker & Gunaydin, 2014). Investigators thus must work diligently to prevent bias.

In addition, investigators learned from the pilot how best to educate staff on the sleep protocols and identified the necessity of supervising the certified nursing assistants. This foreknowledge likely prevented wasted time during the study. Also, investigators used stickers as reminders that a patient was in the study. Details such as stickers can assist busy clinicians during a study. All these strategies enhanced the intervention fidelity of the study. Intervention fidelity is essential to conducting a study treatment consistently and competently with everyone involved (Ibrahim & Sidani, 2016).

Assignment to Groups

One of the many decisions researchers must make is how to assign patients to the intervention and control groups. Ideally, someone would assign patients randomly to either group as they enter the study (Polit & Beck, 2018). However, random assignment may not be practical on a busy clinical unit. Clark and Mills (2017) thus chose a method based on location (different halls). This was probably easier for staff to remember in completing the intervention. In this case, investigators analyzed demographic data to make comparisons and determine similarities between the two groups. Although this method is not ideal, it may be the only way to conduct the study on a busy clinical unit.

Selection of Subjects

In every study, researchers must decide which patients will be included and which patients will not. Clark and Mills (2017) excluded patients who were diagnosed with sleep apnea or dementia, frequently used opioids, or were medicated with sleeping aids. The decision must make sense for each study so researchers have a clear picture of the results (Polit & Beck, 2018). A decision about inclusion and exclusion criteria can be difficult and in this case, it narrowed the number of patients and extended the time needed to get an appropriate sample size based on power analysis (Clark & Mills, 2017). Investigators could consider reviewing the typical admissions on a unit and calculate how long it would take to obtain their sample.

Data Collection Measures

Clark and Mills (2017) used four questions from two widely used research measures. Using tested measures with established reliability and validity can save researchers time and effort. On the other hand, the measure and particularly the specific questions must match the study’s purpose (Valier & Lam, 2015). Keeping the number of questions to a minimum is helpful when researchers have limited resources and time. Patients in the hospital may not have time or energy to complete lengthy instruments. In addition, Clark and Mills (2017) used patient labels with pertinent demographic data already on them, saving time for both patients and staff.

Researchers make many other decisions in any study, such as use of a statistician, the ethics of a study, and other methodological issues (Coulter, Lewith, Khorsan, Kirk, & Mittman, 2014). For studies conducted in the clinical setting, these decisions can mean success or failure in obtaining the data needed to answer the research questions.
questions. A study must be able to provide meaningful answers but it must be reasonable to conduct in a busy, dynamic clinical setting. Clark and Mills’ (2017) study is a solid example of how researchers make these difficult choices in a manner that is time- and cost-effective, and still obtain useful results.

REFERENCES