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Critique 1

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Nursing Research 3130

October 30, 2016

According to Godshall, “the purpose of critiquing is to analyze a research article, identifying flaws, or evidence of bias or other factors that might have affected the results” (as cited in Hoe & Hoare, 2012, p. 53). It is important that nurses learn to critique research articles. This skill will allow them to assess the quality of the research and help them make a decision of whether or not they want to base their practice on the evidence shown. This paper is a critique of an article written by M.Rothman, Solinger, S.Rothman, and Finley (2012) titled: *Clinical implications and validity of nursing assessments: a longitudinal measure of patient condition from analysis of the electronic medical record.*

Problem and Purpose

In the article, the problem statement that the authors state is “this study investigates risks of mortality associated with entry and last pre-discharge nurses’ assessments of patients’ conditions by physiological system” (M.Rothman, Solinger, S.Rothman, and Finley, 2012, p. 1). The problem statement was clearly stated. The problem statement should identify what needs to be investigated in one specific sentence (Broomfield, n.d, p. 33). The problem statement in the study was clearly stated because it described a disturbing situation that needed to be investigated in one sentence. The disturbing situation is the relationship between patient mortality and nursing assessments the nurses’ make of patients’ condition prior to and right before discharge.

The purpose of the research was to try and comprehend the issues of continuity of care in hospitals. The purpose of the research was clearly supported. The purpose of the research was clearly supported as the article contained evidence from several other studies that indicated a correlation between the amount of registered nurses on duty and the number of hospital-related deaths. The supporting articles also mentioned that the attendants and residents fail to read

nurses notes. According to Hoe & Hoare (2012), the purpose of a literature review is to prove why the current study is needed and to discuss relevant issues related to the research question, objective or hypothesis.

The independent variable was nursing assessments and the dependent variable was risk of mortality. The relationship between the independent and dependent variable was clearly stated. According to Polit & Beck (2014), the independent variable relates to the intervention while the dependent variable relates to the outcome. Polit & Beck (2014) also mentioned that a change in the dependent variable is assumed to depend on changes in the independent variable. The relationship between the independent and dependent variables was clearly stated in the study because the researchers investigated the risk of mortality (dependent variable) depending on the nursing assessments (independent variable) performed at entry and just before in-patient discharge.

The purpose of the research has great significance for nursing. The purpose of this research has great significance for nursing for if the transfer of patient information is omitted or incorrect between care providers, risk of patient safety can develop. Ineffective handover communication can furthermore result in a delay in treatment and this can have a deadly effect on a seriously ill patient. Effective continuity of care is important to increase the safety of the patient (Balka, Tolar, Coates, and Whitehouse, 2012, p. 346). *only 2 direct quote*

The researchers met the criteria of ethical considerations when conducting the research study. Rothman et al (2012) indicated that they have received approval for their study by the Sarasota Memorial Hospital Institutional Review Board. According to Hoe & Hoare (2012), in order to meet the criteria for ethical consideration, any research study that relates to health and

involves humans and/or data needs to be reviewed and approved by a research ethics committee before it is conducted.

Method

The design that was utilized for this research was a non-experimental cohort quantitative study. The design for this research was non-experimental because the independent variable was not manipulated. The study is nonexperimental when the researcher does not intervene by controlling the independent variable (Pilot & Beck, 2014, p.159). The design was also a cohort study because it followed a distinct group of people (all the patients admitted during a period of time) and studied the outcomes (mortality). A cohort design is a nonexperimental design where a set of individuals are followed over time to study outcomes of the cohort subsets (Pilot & Beck, 2014, p. 376).

The most rigorous possible design was used given the purpose of the research. Pilot & Beck (2014, p.159) stated that “the strongest design for prognosis questions, and for etiology questions when randomization is impossible, is a cohort design”. In this study, the best possible design was used because the independent variable, nursing assessments could not be manipulated for ethical reasons. Randomization was also not possible in this study as it is not ethical to dictate who or who cannot be admitted to the hospital.

The number of data collection points Rothman et al. (2012) had were appropriate. Data was collected two times in the study. The first data collected were the nursing assessments from the Electronic Hospital Record from 1/2004-12/2004 and 7/2005-6/2006. The second data collected were the mortality rates from each area of nursing assessments at entry and prior to

discharge (Rothman et al, 2012). According to Hoe & Hoare (2012), "data are collected at two or more points over a particular period, usually of several years duration in cohort studies" (p. 55).

The appropriate comparisons were made to enhance interpretability of the findings. The same study participants (admitted patients) were used to be compared at different points in time in the study. The study by Rothman et al (2014) looked at in-hospital mortality rates of patients whom nursing assessments were performed at entry and post discharge mortality rates with nursing assessments performed just prior to discharge. Comparisons enhance interpretability of findings best when the main problem under investigation is highlighted and clear (Parahoo, 2014).

The design did not minimize biases and threats to the internal and external validity of the study. In the study, the researcher did not control for confound variables. Rothman et al (2012) noted in their study that demographic and diagnostic data have not been collected for their population. The site where the authors conducted their research has a much older population affecting generalizability. According to White & Miller, confounding variables obscure the relationship between the independent and dependent variables (as cited in Broomfield, n.d, p.33). In the study by Rothman et al (2012), selection bias was not minimized due to lack of randomization. The lack of randomization is prone to more errors which can ultimately affect the outcome of the study making this method less reliable (Hoe & Hoare, 2012, p.56). Another aspect of the study that affected the external validity was the exclusion criteria. Rothman et al (2012) chose to exclude obstetric, psychiatric and pediatric patients. According to Parahoo (2014, p.131), inclusion and exclusion criteria may affect whether the findings in a study can be generalized or not.

Population and sample

The population was identified and described in the study. In the study by Rothman et al (2012), the population was all patients excluding obstetrics, pediatric and psychiatric admitted for any reason during the periods of 1/2001-12/2004 and 7/2005-6/2006 in Sarasota Memorial Hospital. The population is the entire group of interest and often includes eligibility criteria such as inclusion and exclusion to note who and who does not qualify to be part of the population (Pilot & Beck, 2014, p. 177). The sample were 42, 302 inpatient visits in Sarasota Memorial Hospital. The sample was not described in sufficient detail because the researcher failed to describe key characteristics such as the sex and age. Rothman et al. (2012) stated in their study that “demographic data and diagnostic data have not been collected for this population” (p. 2). According to Pilot & Beck (2014), a sample is “a subset of population elements” (p. 177).

The sampling design that was used by Rothman et al (2012) was nonprobability convenience sampling. In the study, the researchers did not randomly select the patients admitted to the hospital but instead chose all the patients who were admitted during a specific time period. The sample was convenient because the researchers chose a readily available group of people who were admitted in the hospital where they conducted the research. The best possible sampling design was not used to enhance the sample’s representativeness because nonprobability sampling is less likely to produce a representative sample due to the elements being selected in a nonrandom fashion from the population (Pilot & Beck, 2014, p. 178). Sample bias was not minimized because the sample was convenient. When the sample is selected through convenience, the people who are readily available to the researcher might be different from the population being studied. This may lead to bias where the population can be over or under represented (Pilot & Beck, 2014, p. 178).

The sample size of 42,302 inpatients is adequate. According to Pilot & Beck (2014), a larger nonprobability sample size have less sampling error and is better than a smaller sample size. There was no evidence of use of power analysis in the study by Rothman et al (2012) to estimate sample size needs.

References

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