**Qualitative and Quantitative Research: A Critique**

**Qualitative Critique**

**Cameron, K. A., Cohen, E. R., Hertz, J. R., Wayne, D. B., Mitra, D., & Barsuk, J. H. (2018). Barriers and Facilitators to Central Venous Catheter Insertion: A Qualitative Study. *Journal of patient safety.***

**General Introduction**

This nursing article was intended to advance the knowledge on the barriers to effective central venous catheter (CVC) insertions and the role of facilitators in the process. Therefore, the purpose of this positive criticism is to identify and evaluate how the findings improve the field of clinical practice.

**Title**

The title of the article describes the contents, intent and purpose of the research in a clear, accurate and succinct manner.

**Abstract**

The abstract is representative of the entire research task. It contains all the main subsections of the article, including the objectives, the methods, results and the conclusion. It is possible to summarize the entire article by reading the abstract. Therefore, the abstract is representative, focused and summarizes a majority of the key aspects in the study (Blaxter, Hughes & Tight, 2010).

**Introduction**

The authors introduce the article in an elaborate manner, stating all the major facts and identifying the actual and the ideal situations in the practice of inserting CVCs.

**Statement of the Problem**

The problem is clearly stated and introduced. The authors are able to identify the gap in literature and have used evidence to support major facts (Polit & Beck, 2010).

**Purpose of the Study**

Having stated the problem, the authors states that the purpose of the article is to examine the barriers in the insertions of CVCs and how to leverage the facilitators in improving the delivery of services.

**Research Questions**

The research questions are clearly stated and defined. They help the researchers meet the objective of the study.

**Literature Review**

The researchers have utilized relevant literature in their study. Most of the articles used are within the acceptable range of not more than five years ago (Lo Bilondo-Wood & Haber, 2010). A majority of the articles uses are within the period starting 2012 and ending 2018. The previous research addresses many areas of difference and the existing gaps and the researchers step in to bridge these gaps.

**Methods**

The authors used a descriptive research design. This design is relevant and useful in this study because it utilized semi-structured interviews. It would be difficult to acquire quality information from the sample in this study in the case where a different design was selected. However, the study did not consider aspects of validity, reliability and consistency of the information (Schmidt & Brown, 2012). Therefore, this is one of the limitations of this research task.

**Sample**

The authors selected their sample in a purposive manner, where only specialists and professionals were allowed for the sample selection. For the inclusion criteria, the authors selected nursing care practitioners enrolled in a CVC insertion SBML program. Other participants eligible for the sample included specialists from intensive care units.

The sample selection does not show any elements of bias. Similarly, the sampling approach fits with the research design selected. It helps the researchers to acquire the needed data from reliable sources. However, the sample size (n=28) is relatively small (Wood & Ross-Kerr, 2011).

**Analysis**

The researchers used two approaches in analysis namely the comparative method and the grounded theory approach. These approaches are effective and consistent with a descriptive research design. It helps them to identify the desired results and hence address the research questions effectively.

**Results**

The results of the study are presented clearly and statistically. However, there is shortage in the use of tables and figures to represent the findings. However, all major statistics are clearly states and explained.

**Discussion**

The results are discussed in the context of the clinical practice and linked to identified theory in literature review. These findings answer the research questions with entirety and hence meets the objective of the study.

**Ethical Consideration**

Unfortunately, the article does not have a section discussing the ethical consideration. No evidence of an ethical committee reviewing the ethical and legal aspects of this study. However, this lack of information does not appear to harm any aspects of the research, including data collection and sample management.

**Limitations**

The authors identify a small sample size (n=28) as a possible limitation for the study and state that it has an implication on the validity and reliability of the findings. However, they state that in future, a larger sample size will be selected to avoid similar limitations.

**Conclusion**

The authors offer clear and succinct recommendation for the practitioners, specialists and other consumers of these findings. They state that these practitioners should adopt the SBML programs because they have the potential to enhance facilitators in the insertion of CVCs (Cameron, et al., 2018). Examples of these facilitators include personnel competence/confidence and the use of ultrasound. These recommendations are feasible and relevant to the field of clinical practice.

**Quantitative Critique**

**Dahan, M., O’Donnell, S., Hebert, J., Gonzales, M., Lee, B., Chandran, A. U., ... & Quach, C. (2016). CLABSI risk factors in the NICU: potential for prevention: a PICNIC study. *infection control & hospital epidemiology, 37(12),* 1446-1452.**

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**General Introduction**

This paper was designed to examine whether intra-abdominal pathologies are independent risk factors for CLABSI. The purpose of this critique is to assess how the findings of this study improve nursing practice in preventing and controlling central-line infections.

**Title**

The title is elaborate and identifies the objective and intent of the study. It also identifies the target population and the nature of the research.

**Abstract**

The abstract is representative with major sections including the objective, methods, results and a conclusion. It summarizes the entire study in a short paragraph which captures a majority of the content, findings and recommendations.

**Introduction**

The introduction is elaborate and states the problem, cites the existing facts and the need for the research.

**Statement of the Problem**

The authors identify the problem and distinguishes between the actual and the ideal situation. They state that the central line infections (CLABSI) are a major cause of death in neonates. Therefore, there is need to understand the causative agents and how to eliminate them.

**Purpose of the Study**

The researchers have identified the purpose of the study, which is to identify the risk factors for CLABSI and possible means of preventing these infections.

**Research Questions**

The research questions are clearly explained and focused to meet the objectives of the study. These questions inform the type data to be collected, from where and when (Schmidt & Brown, 2012).

**Literature Review**

The literature review is comprehensive and identifies the similarities and discrepancies in the findings of other researchers. These gaps in literature support the need to conduct the study, which is intended to reduce the number of deaths among neonates and those that result from CLABSIs.

**Methods**

The authors used an experimental research design in a neonatal intensive care setting. A local control database at the Royal and Montreal Children’s Hospitals was used for data collection. This research design and the corresponding data collection tool are appropriate for the study. A different choice of research design would prove difficult to acquire quality data.

**Sample**

A sample size of 413 CLABSI cases was selected (n=413). For the inclusion criteria, the researchers identified the cases occurring between 2009 and 2014 at the two hospitals identified above. A retrospective matched case-control study and an accompanying logistic regressions was used in the sampling process. There are no elements of bias in the sample selection. This sample size is significant and can be justified as representative of the population.

**Analysis**

The conditional logistics regression analysis approach is used in this study. This technique is the best match for the research design in this study. It is capable to show the relationship between the CLABS infections and the identified risk factors in the study. This task would be difficult is a different analysis technique was selected.

**Results**

The authors present their findings accurately and employ the use of statistical reporting and visual representation of data. The facts are stated clearly and supported by statistical evidence. For instance, the researchers reported that at 95% confidence interval, intra-abdominal pathology turned out to be an independent risk factor for CLABSI. These findings answer the research questions and meets the objectives of the study.

**Discussion**

The discussion section links the findings, the literature and future directions in clinical practice. The authors also give an explanation to their findings and what they imply in theory and in practice.

**Ethical Consideration**

The researchers declare that the data retrieved from the local database is used primarily for the purpose of the study and they have no intentions to use it for commercial purposes. However, there is no information or evidence of an ethics committee reviewing the ethical issues in this research. However, this limitation does not discredit the findings of this study or ruin its validity.

**Limitations**

The researchers identify the few number of hospitals selected (2) as a possible limitation for their study. Similarly, it was impossible to exhaustively determine all the factors contributing to CLABSI in neonates because they depended on an already existing database for data collection. However, despite these limitations, their findings are directly related to the aims.

**Conclusion**

In summary of the study, the researchers offer recommendation to practitioners in neonate intensive care units. That is, the researchers recommend that these professionals should consider heel puncture and intra-abdominal pathology (IAP) as active risk factors for CLABSI. Particularly, the intra-abdominal pathology increased chances of CLABSI contraction by 6-folds (Dahan, 2016). Therefore, if practitioners prevent IAP and heel puncture, then they reduce the chances of CLABSI contraction among neonates and hence reduce rate of mortality and morbidity among the neonates. These recommendations are specific and feasible in the field on critical care nursing.

**References.**

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