

## Article Critique

### **Introduction**

The article under consideration is titled *Antenatal education for expectant mothers results in sustained improvement in knowledge of newborn care* and is written by authors with medical background from the U.S. and Lao People's Democratic Republic. The purpose of the study is clearly presented in the initial paragraph of the article; there are two main purposes: to assess the efficacy of antenatal education in mothers' knowledge of basic newborn care in limited resource nursery and to determine if it is retained after the study. The significance of the study was also sufficiently explained and stated that neonatal mortality in Lao People's Democratic Republic (PDR) is much higher than developed countries with a rate of thirty-five deaths per one hundred births (Darmstadt et al., 2008; Weiner et al., 2011). To enhance the reader's knowledge about the topic, the authors provide the information about an insufficient number of educational interventions in the country. Thus, the reader discovers the reasons for carrying out this study in details.

### **Problem Statement**

The article defines the problem by describing the current alarming situation with neonatal mortality in Lao PDR and education level of the parents, especially mothers. The problem becomes clear until the Methods section is reached, therefore, it is sufficient to claim it was clearly described. The same could be said about the research question: is third-trimester education about basic neonatal care in the limited-resource setting is associated with increased parent understanding about basic neonatal care and illness identification after the birth? The hypotheses were not stated. Given the alarming statistics of neonatal mortality in the Lao PDR, the researchers used the education about the most common neonatal problems identified by the World Health Organization (Guevvera, 2006). By working with Lao collaborators, the authors

determined that the intervention was feasible and relevant so the study has the potential to improve the current situation with neonatal mortality.

### **Literature Review**

The next should have been the review of the relevant literature on the subject that summarizes the previous studies and justifies the needs for the current study (Fink, 2013). However, this section was not found in this particular research article. The introduction was the only section that provided a short overview of some resources on the topic, so the detailed information about the area of interest was not present. Despite the authors provided the essence, they did not follow the accepted format of a modern research paper.

### **Theoretical framework and Hypotheses**

The rationale for the theoretical framework is not stated and the researchers do not state the theoretical basis for hypothesis information because there are no hypotheses identified in this study.

### **Methodology**

The authors utilized an educational intervention covering three topics: danger signs for neonatal illnesses, umbilical cord care, and temperature control. There were two questionnaires, pretest, and posttest, and mothers who were able to follow through the delivery were retested. They lasted for ten minutes and comprised of twenty-three questions that were read to mothers or completed independently (Weiner et al., 2011). Culturally relevant teaching points were also added to the intervention. Therefore, the design was appropriate for the purposes of the study. All the methods of data collection were also sufficiently described.

### **Sample**

The clear description of the study subjects is provided. They were expectant mothers in their third trimester of pregnancy at the Medical Center in Vientiane, Lao PDR and were

recruited from by the nursing personnel from the waiting room (Weiner et al., 2011). Clearly, it was a convenience sample of 101 females and only forty-five of them were followed up after delivery and participated in the third final test. It is sufficient to claim that adequate assurance of the rights of the human subjects was provided as the study was approved by the Institutional Review Board at the University of California and at the Medical Center in Vientiane, Lao PDR.

### **Instruments**

The questionnaires are appropriate instruments for data collection in this study. To ensure the reliability and validity of the instruments, the researchers also assessed mothers' comfort and the usefulness of the provided education using a Likert scale.

### **Data analysis**

The question-specific scores and overall results were compared in a paired analysis using ANOVA and multiple regression analysis using STATA 9.0 (Weiner et al., 2011). These instruments are often used in similar scientific studies (Hamilton, 2012) so could be considered appropriate.

### **Results**

The results of each test are described in a clear and objective manner. In the study, the researchers found a statistically significant improvement in test scores (increase in ten percent) between the pretest and posttest. After the delivery, the information was retained by the subjects who achieved similar results on these two tests. In terms of all the areas identified by the WHO, the results were improved across the participants. Figures and tables effectively aid the readers to understand the outcomes of the study.

### **Discussion**

The conclusions identified by the authors are based on the results of the study: short educational interventions have the potential to increase the knowledge of mother about neonatal

problems. Also, the limitations were clearly identified: the researchers did not analyze the care behaviors after the birth and it was impossible to interview the entire initial sample for the third time. Generalizations are made accordingly within the scope of the results as well. The study clearly had a number of implications of the findings, including the education of mothers, improvement of the care for newborns, and promotion of care-seeking behaviors among Lao women. The future implications are also discussed in a clear manner and state that brief educational sessions are a feasible, sustainable, and effective method that could be used in developing countries.

### **Research Utilization Implications**

Despite the study does not provide a sufficient literature review on the topic, it can be considered as a study of correspondent quality that meets the criteria of scientific merit. Clearly, it is relevant to the current situation in Lao PDR and has real implications for improving the neonatal care and reducing the level of newborn care. Therefore, it is feasible for nurses to implement because it can stimulate the mothers to seek health care in case if their newborns need medical care. Eventually, the benefits of the study outweigh the risks and can be used by governmental agencies to improve neonatal care in the country.