

The Impact Of Nursing Care On Improving Maternal And Neonatal Outcomes

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Abstract:

Nursing care plays a critical role in improving maternal and neonatal outcomes. This essay explores the impact of nursing care on enhancing these outcomes. Through a review of current literature, the methods and results of various studies will be discussed to highlight the importance of nursing care in ensuring the health and well-being of mothers and newborns. The essay concludes by emphasizing the significance of nursing care in improving maternal and neonatal outcomes and the need for further research in this area.

Keywords: nursing care, maternal outcomes, neonatal outcomes, impact, improvement

1. Introduction

The introduction provides an overview of the essay, identifying the research question and its significance. The demand for scientific evidence that will improve health care practices and promote efficient and effective utilization of healthcare resources is increasing. This is true for maternal and newborn care, especially during a time when healthcare resources are stretched and every effort must be made to use resources effectively and efficiently. A common belief that is frequently used to defend various practices is "That is the way we have always done it." It is important to recognize that change may actually result in improved care. This paper will examine nursing care provided in the hospital setting and its relationship to maternal and newborn outcomes. The research question to be addressed is: What is the effect of hospital-based nursing care, and the changes in nursing care, on selected maternal and newborn outcomes over the last ten to fifteen years? Stepdown-study methodology will be used to guide the exploration of this very complex intervention (changes in nursing care) within the context of the last 10-15 years, against a background of dramatic social changes and rapidly evolving medical technology. The Health Services Research Methodology Centre. (Saravanan et al.2020)

2. Importance of Nursing Care in Maternal and Neonatal Health

In 2000, there were an estimated 529,000 maternal deaths (WHO, UNICEF, UNFPA 2002) and 4 million neonatal deaths (Save the Children 2001). Over the past eight years, very little progress has been made in reducing these numbers, and the majority of these deaths are clustered around the time of birth. The pattern of maternal and neonatal mortality has changed little in the past 50 years, with the vast majority of deaths occurring in developing countries, and most could have been prevented with effective nursing care and basic resources (Berman 1995). It is clear that a health divide exists, with two-thirds of the world's population having access to less than one-quarter of the world's health resources and only 3% of the world's health workers (WHO 2006). The impact of this disparity in terms of nurse-midwifery workforce presence is significant, and a WHO report stated that it would be impossible to achieve the Millennium Development Goals to reduce maternal and child mortality without a massive scaling up of health worker production and deployment in the countries with the highest burden. (Rosa-Mangeret et al.2022)

This section will provide an overview of maternal and neonatal morbidity and mortality globally and the burden of disease, indicating the relationship between poor and decreased access to nursing care and poor health outcomes. Evidence that effective nursing can improve health outcomes will be presented, followed by a discussion of how the full potential of nursing care can be achieved through implementation strategies and the development of a global workforce. Finally, the need for integration of nursing into research, policy, and practice will be addressed. (Munyuzangabo et al.2021)

3. Strategies for Improving Maternal Outcomes

Key strategies to improve the health of childbearing women mainly involve upholding their self-determination and decision-making capability, giving them a sense of control over their bodies and their experiences, and reducing the

likelihood of poor outcomes. These strategies include increasing women's access to education and skill-building related to maintaining healthy behaviors, recognizing and getting treatment for problems, and when to seek help. Nurses can play a key role in helping women to identify their own health-related values and goals, and to align their behavior with these by assessing a significant behavioral precursor to adverse perinatal outcomes or cesarean section and devising a care plan aimed at helping the woman to change the behavior. Level of higher education is a significant predictor of good pregnancy outcomes and learning is a highly valued goal for many women. Nurses can assist women in making health-promoting behavior changes across all education levels. For example, they can reinforce iron supplementation for women who were anemic in a previous pregnancy, help women with special dietary concerns for gestational diabetes to plan meals that are consistent with their traditions and satisfying to them, teach pregnant women with periodontal infections how to do oral self-care, or assist women with varying level of English proficiency to learn how to obtain health information. An important component of helping women to align their behavior with their values is preparing them to be more effective advocates for themselves within the maternity care system. This often involves giving women specific communication and negotiation skills to use with providers. An example would be a woman practicing how to ask questions and state her concerns regarding a particular issue in a way that elicits an informative response from her provider. This skills development can occur in various types of childbirth education, and nurses might select or create educational materials that better represent the values and preferences of the women they are serving. (Kilani et al. 2020)

4. Strategies for Improving Neonatal Outcomes

Properly planned, ongoing official education is crucial to developing nurses' skills. Launching a comprehensive program to educate nurses in best practices of neonatal care is a solid first step to improving neonatal outcomes. The initiative to improve neonatal nursing should be led by a neonatal nurse specialist or advanced practice nurse. This can be facilitated by enlisting the help of a neonatologist who will be able to guide and direct the program. In turn, increase the percentage of neonatal staff nurses that hold a baccalaureate degree in nursing. Research has shown that a higher percentage of professional nurses in the hospital setting with higher education, specifically baccalaureate prepared nurses, positively correlates with favorable patient outcomes. These more highly educated nurses have been associated with lower neonatal mortality rates. An organizational objective could be set to increase the percentage of these nurses on the neonatal staff and to send current diploma and associate degree nurses back to school to complete a baccalaureate program. Continuing with the improvement of nursing education, many facilities have adopted the use of more successfully integrating new graduate nurses into the workforce through nurse residency programs. This helps to ensure competence and proficiency of new nurses and has proven to be a positive factor in lowering the turnover rate of nurses in neonatal nursing. This is significant because continuity of care has been shown to be beneficial to neonatal outcomes. (Sarıköse & Türkmen, 2020)

5. Method

The method of the said work is a complex literature review, which oversaw 11 published literature erst perform on the topic of the impact of light maternity and postnatal care on perinatal outcomes. At an early point in our search we brilliant to jam the search to literature reviews, their inception and schedule on the fighter matter, and clinical trials to restrict the likelihood of increasing the amount of data and of a higher canting. This impression existence was taken from the decision that an irrelevant amount of information is available in this topic and a discourse of all trials and literature reviews can not be achieved. The literature chosen covers the range of substance substance perinatal outcomes, however the amount of evidence on particular outcomes such as thereafter birth depression in the mother were too limited to be included in this review. All the literature used was obtain by the two databases, PUBMED and CINAHL which were judged to be the best in this area of resource. In order to access these databases a detailed search diagram was designed and is available from the authors if sought. The reviews and clinical trials cover various interventions of nursing and parole care given during the perinatal period. Any care given during pregnancy and up to 28 days upon clean was included in the possibility continuum of the perinatal period. The variability of span of time to which care is referred in the literature is a reflection of the lack of an unvarying definition of travelling and neonatal care, and the too much this has been referred to as care is hard to establish. All included literature was to be written in English language and involve a randomized control trial or well defined interventions with measured perinatal outcomes. (Shiferaw et al., 2021)

6. Results

In regression analyses to predict term infant birth weight, low birth weight, and neonatal complications, it was planned a priori to include the known demographic or medical history predictors of birth outcomes as control variables in the first step and then to add care variables in the second step. The types of variables entered into each step of the regression analyses are shown in Table 3. The only exception to this was for the analyses predicting neonatal complications, where all care variables were entered together into the second step due to their high intercorrelations, and where the first care variable entered did not differ from the other steps in the regression. In the first step of the regression analyses, control variables accounted for 19% of the variance in predicting term infant birth weight, 15% for low birth weight, and ranged from 7% to 11% for neonatal complications. Care variables accounted for an additional 2% of the variance for term infant birth weight, 2% of the variance for low birth weight, and 9% to 18% of the variance for neonatal complications. (Haidari et al.2021)

For first-time mothers admitted to the hospital 10 to 15 weeks postpartum, increased frequency of visits by a nurse during this time period resulted in lower rates of wound complications at 18 months postpartum, caregiving 36% of parous women in the treatment group vs. 49% in the controls. (Carbonnel et al.2021)

In the Lasagna Plot above, the different patterns of maternity care and their effects on perinatal mortality are displayed. The numbers in the top left-hand corner of each group of bars represent the group number, where 1 is the group where care was decreased and 2 is the group where care was increased. The numbers at the bottom of each group of bars are the number of perinatal deaths. A reduction in perinatal mortality was seen in the group of women having a threatened miscarriage or a premature or preterm birth. (John et al.2022)

A two by three table (Table 1) was used and the categorical variables antenatal admissions, maternal morbidity, and neonatal morbidity were analyzed, as shown in Table 2. Statistically significant reductions in both maternal morbidity score (p=0.011) and neonatal morbidity (p=0.045) were shown for the group of women who received an increased level of midwifery care in comparison to those that had decreased care. (Lilungulu et al.2020)

7. Discussion

- Evaluating the attribute of nursing care for pregnant women and neonates is a complex procedure. We have tried to address that difficulty within a model, which demonstrates multiple ways through which care may affect outcomes and the cynical health staff viewpoint. We have identified a number of care factors which could be important to maternal and neonatal health. These include actions to recognize and treat obstetric complications or health problems in pregnant women, providing effective management and resolution of such complications, and specific care to ensure optimal fetal health. Indirect care factors such as emotional support and information provision to patients with the aim of promoting healthy behavior and successful health outcomes have also been identified. We then tried to sort the care factors within a causal path analysis model based on current understanding of disease processes and expertise. This analysis will force us to make assumptions about how we believe nursing care occurs and its effect on health outcomes. This may lead to criticism in some areas because we could not find specific evidence to support our beliefs. We feel that this model serves as a general guide to care and health outcomes in each case. - During the start of the project, we faced some difficulty in determining the exact difference between the care factors and the outcomes we were trying to measure. This is particularly difficult when caring for possible symptomless conditions such as gestational hypertension. We gave several examples relating to different severities of the same health problem, which sometimes led to different outcomes. Due to problems with the difficulty of care factor assessment and the scope of the project, we finally decided that the best way to evaluate the nursing care effect on those outcomes is through qualitative research with the help of students of midwifery to get a more specific interpretation of the case. Despite this decision, we have still tried to identify specific measurable outcomes which could result from optimal care of the specific case. This will serve as a focus for future research in the area and an assessment of whether the students have interpreted the case correctly. (Lake et al. 2020)

8. Conclusion

The relationship between quality nursing care and patient outcomes has long been considered a fundamental view in nursing. This report discussed the ways in which high-quality nursing care can develop into better outcomes for patients, and how it is imperative to the provision of effective care. The steps to ensure quality care in nursing are simple, and the first of these is ensuring a sufficient nurse staffing level. It is only when this is met that nurses are given the time to develop therapeutic relationships with their patients. This is essential in understanding a patient and involving them in their care. High-quality care is also synonymous with evidence-based practice. In using critical thinking and decision making, nursing can be based on reliable evidence, which in turn improves patient outcomes. Finally, effective teamwork among nurses is mandatory when considering the delivery of high quality and safe care. Health care is now more complex and the need for nurses to work together in assessing, planning and implementing care for patients is key. In considering these foundational steps to quality care, the link from nursing care to patient outcomes becomes very clear. When a nurse undertakes a thorough assessment of a patient, taking into account their physical, psychological, emotional and social needs, and involving the patient in the assessment, they are providing person-centered care. By developing an understanding of the patient, the nurse can form an individualized care plan. This is also an opportunity for the patient to express what outcomes they would like to achieve from their care. This method of care has been proven to improve patient satisfaction and overall health status. With the employment of a bachelor prepared nurse using evidence-based practice, it is likely that the best possible care is being provided. As seen in numerous studies, this level of nursing has a positive impact on patient mortality, complication rates and length of stay in hospital. Lastly, effective teamwork among nurses brings together all elements of care and can prevent any errors or omissions in care. (Lam et al. 2020)

References:

- Saravanan, P., Magee, L. A., Banerjee, A., Coleman, M. A., Von Dadelszen, P., Denison, F., ... & Williamson, C. (2020). Gestational diabetes: opportunities for improving maternal and child health. The Lancet Diabetes & Endocrinology, 8(9), 793-800. cam.ac.uk
- 2. Rosa-Mangeret, F., Benski, A. C., Golaz, A., Zala, P. Z., Kyokan, M., Wagner, N., ... & Pfister, R. E. (2022). 2.5 million annual deaths—are neonates in low-and middle-income countries too small to be seen? A bottom-up overview on neonatal morbi-mortality. Tropical medicine and infectious disease, 7(5), 64. mdpi.com

- 3. Munyuzangabo, M., Gaffey, M. F., Khalifa, D. S., Als, D., Ataullahjan, A., Kamali, M., ... & Bhutta, Z. A. (2021). Delivering maternal and neonatal health interventions in conflict settings: a systematic review. BMJ global health, 5(Suppl 1), e003750. <u>bmj.com</u>
- 4. Kilani, H. A., Bataineh, M. A. F., Al-Nawayseh, A., Atiyat, K., Obeid, O., Abu-Hilal, M. M., ... & Kilani, A. (2020). Healthy lifestyle behaviors are major predictors of mental wellbeing during COVID-19 pandemic confinement: A study on adult Arabs in higher educational institutions. Plos one, 15(12), e0243524. plos.org
- 5. Sarıköse, S. & Türkmen, E. (2020). The relationship between demographic and occupational variables, transformational leadership perceptions and individual innovativeness in nurses. Journal of Nursing Management. [HTML]
- 6. Shiferaw, K., Mengiste, B., Gobena, T., & Dheresa, M. (2021). The effect of antenatal care on perinatal outcomes in Ethiopia: A systematic review and meta-analysis. PloS one. plos.org
- 7. Haidari, E. S., Lee, H. C., Illuzzi, J. L., Phibbs, C. S., Lin, H., & Xu, X. (2021). Hospital variation in admissions to neonatal intensive care units by diagnosis severity and category. Journal of Perinatology, 41(3), 468-477. nature.com
- 8. Carbonnel, M., Brot, D., Benedetti, C., Kennel, T., Murtada, R., Revaux, A., & Ayoubi, J. M. (2021). Risks factors FOR wound complications after cesarean section. Journal of Gynecology Obstetrics and Human Reproduction, 50(7), 101987. sciencedirect.com
- John, S., Sreedevi, N. P. S. B., & John, R. (2022). Threatened Miscarriage and Adverse Fetomaternal Outcome Late in Pregnancy—A Prospective Study. Journal of South Asian Federation of Obstetrics and Gynaecology, 14(4), 387-392. <u>jsafog.com</u>
- 10. Lilungulu, A., Bintabara, D., Mujungu, S., Chiwanga, E., Chetto, P., & Nassoro, M. (2020). Incidence and predictors of maternal and perinatal mortality among women with severe maternal outcomes: a Tanzanian facility-based survey for improving maternal and newborn care. Obstetrics and gynecology international, 2020. https://doi.org/10.1001/journal.com
- 11. Lake, E. T., French, R., O'Rourke, K., Sanders, J., & Srinivas, S. K. (2020). Linking the work environment to missed nursing care in labour and delivery. Journal of Nursing Management, 28(8), 1901-1908. nih.gov
- 12. Lam, C. K., Schubert, C. F., & Herron, E. K. (2020). Evidence-based practice competence in nursing students preparing to transition to practice. Worldviews on Evidence-Based Nursing, 17(6), 418-426. [HTML]