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## Community Doula Services for Low-Income Population and its Correlation to Hospital Re-admissions of Newborns

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# Community Doula Services for Low-Income Population and its Correlation to Hospital Readmissions of Newborns: An Integrative Literature Review

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## Background

Researchers in 2013 found that majority of newborns were readmitted to the hospital for potentially avoidable circumstances such as feeding problems and jaundice. Many of these hospital admissions of newborns to the hospital are preventable. This ILR will review and analyze if Doula's can appease some of the hospital readmissions.

A doula is someone who accompanies the mother during labor and delivery. The doula also conducts home visits to new parents during the weeks before and after birth to address and discuss questions and concerns.

## Purpose of the Study

The purpose of this integrative literature review is to examine if providing prenatal and postpartum care provided by community doulas for those lacking financial support as well as social support has any health benefit to newborns. While the role of a doula is defined as a trained paraprofessional whose primary function is to offer support for both the mother and the child during pregnancy, delivery and the weeks after the birth; pregnancies, as well as birth rate by age can vary. Statistics show that birth rate declined for women in their late 20s but rose for women in their 30s and early 40s from 2014 to 2015. It would be beneficial to know more about the elements of a positively received community doula program.

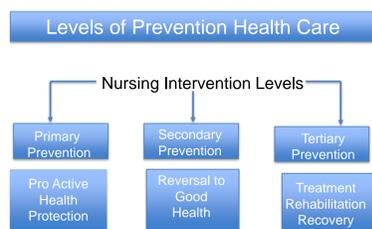
## Research Questions

What key elements contribute toward making a community doula program successful? Furthermore, what other factors such as cultural competency or linguistic expertise needs to be included in the community doula program?

Since community doulas also provide home visits a few weeks after birth to address and discuss questions and concerns, can these visits serve as a preventative measure to lower hospital readmission rate for newborns?

## Conceptual Framework

The conceptual framework that best fits this study is Leavell and Clark's (1975) levels of prevention model. This is a preventative-based model that continues to influence both public health practice and ambulatory care delivery worldwide. The model implies that disease does not just appear; instead it is a continuum phenomenon where health is at one end and progressive disease is at the other. Defined are three levels in which preventative procedures can be applied to uphold health and prevent the disease process at different stages along the continuum. The overall purpose is to maintain a healthy state and to prevent illness or injury. Levels of prevention model consists of three levels. These include primary prevention, secondary prevention and tertiary prevention levels.



## Method

This integrative literature review was developed following the integrative review of literature guideline (IRL) of the research. The designs in the research studies that were reviewed included a longitudinal study of the community doula's effectiveness, particularly around health and parenting outcomes cohort study design, which lasted for about 3 years. This design was appropriate because it followed the same set of participants using research methods such as experiment, survey or observation to see the effectiveness of community doula's around health and parenting outcomes.

A retrospective study was done to determine the cause of hospital readmissions in the newborn population. This design was appropriate for this study because it used data from a hospital's database to determine several different aspects. These included the frequency, causes, costs, and variations in rates of early re-hospitalization of newborns.

Table 1: Diagram of Review Process

	PubMed	ProQuest	CINAHL Complete	PsycINFO
Number of studies found using keywords	N=223	N=124	N=378	N=59
Number of studies meeting inclusion criteria	130	23	231	45
Number of studies after excluding duplicates	116	23	231	30
Number of studies after using exclusion criteria	5	18	15	30
Number of studies selected based on total content	19			

## Results

After an extensive review of the literature was conducted, five studies related to community doula's services, pregnant women of lower socioeconomic status, newborns with low birth weight, and hospital readmissions were selected. These studies were conducted in the United States and Rural Nepal and included cohort studies, retrospective studies, longitudinal studies, observational studies and qualitative studies. Individuals that participated in the studies include low birth weight babies in Rural Nepal, pregnant mothers of low socioeconomic status and pregnant adolescent African American mothers and mothers who are considered low-income and receiving Medicaid assistance.

Table 2: Data Matrix of Summary of Studies Included in Literature Review

Reference	Design	Aim/Objectives / Question	Sample and Study Population	Methods	Major Findings	Limitations	Significance to issue/problem/question
Neupane et al. (2017)	Cohort Study Descriptive Correlational	Assess the possibility of deaths among low birth weight (LBW) infants who received female community health volunteers (FCHV) follow up visits for home-based care in comparison to those who did not receive these follow up visits in Rural Nepal.	N = 2,229 Low birth weight baby 2000 g - 2500 g In Rural Nepal	probability sampling random sampling questionnaires	LBW infants who received FCHV follow up visit was 84% less as compared to LBW infants who did not obtain this sort of provision	no control group	Significance of providing community doulas to resource-limited areas
Young, Korgenski, & Buchi (2013)	retrospective study design	Common causes of newborn hospital readmission	N = 5,308 (17.9/1,000)	Queried hospital's database to determine frequency, causes, costs, and variations in rates of early re-hospitalization of newborns.	41% had feeding problems, 35% had jaundice, and 33% had respiratory distress	The queried data was done on a large health care system only	The majority of hospital readmission in the newborn population is due to preventable reasons
Hans (2017)	Longitudinal study	Community doula's effectiveness	N = 248 <21 of lower socioeconomic status	Randomized Controlled trial Weekly visits Questionnaires	64% more likely to choose to breastfeed. Twice as likely to continue breastfeeding longer than six weeks. Were more likely to embrace their role as a new mother.	Study doesn't conduct follow-up visits after 6 months of age	Providing community doulas to those under age 21 is beneficial to a baby
Humphries & Korfmacher (2012)	Qualitative study	Examining the qualities of the relationship between doulas and African American adolescent mothers in a prenatal and early postnatal support program which identified positive, negative, and ambivalent qualities of these relationships.	N = 12 Pregnant adolescent African American mothers (<21 years) (95%) were considered low-income and were receiving Medicaid	Randomized Intervention Study	Analysis revealed positive, negative, and ambivalent themes in mothers' and doulas' descriptions of their relationships, although the majority of the relationships were considered positive.	Research sample focused only on African American adolescent mothers.	Although mostly positive outcomes are discussed in doula services, further research needs to be done to explore the negative elements of these services.
Bircher, J., & Hahn, E. G. (2016)	Observations	Improve well-being at a lower cost by exploring Meikrich model which states that "Health is a dynamic state of wellbeing emergent from conducive interactions between individuals' potentials, life's demands, and social and environmental determinants."	Health systems and the public health in low and high income countries.	Meikrich model's possible applications for personal and public health care was explored as well as questionnaires	The rising costs of health care presumably are due in part to ignoring certain social disparity. Health as a complex adaptive system offers new possibilities for patient care, particularly for general practitioners, current medicine and public health will be able to offer much more health support, once the importance of the personally acquired potential (PAP) is generally recognized, further developed, and fully integrated into all health care activities.	This study is in the theoretical stage	Reducing health care cost by going back to basics and recognizing that not all individuals share the same social and financial support. A healthier outcome can arise if patients are given access to certain individual support systems thus reducing overall healthcare costs. With the constant rise in healthcare cost, the Meikrich Model can be an important tool and point of reference for policy makers and other stakeholders.

## Discussion

- Study conducted by Neupane et al. (2017) suggests that LBW infants who received FCHV follow up visit was 84% less as compared to LBW infants who did not obtain this sort of provision.
- Study conducted by Young, Korgenski, & Buchi (2013), suggests that the majority of hospital readmission in the newborn population is due to preventable reasons.
- Results for study conducted by Hans (2017), was that 64% of mothers who participated were more likely to choose to breastfeed. Furthermore, they were twice as likely to continue breastfeeding longer than six weeks and were more likely to embrace their role as a new mother.
- Bircher, J., & Hahn, E. G. (2016) suggests that a healthier outcome can arise if patients that are lacking, are given access to certain individual support systems thus reducing overall healthcare costs.

## Conclusions

Community doulas may also serve as a preventative measure to lower hospital readmission rate for newborns thus lowering overall healthcare costs. With their preemptive action, community doulas emphasize the notion that positive health, that inspires the achievement and maintenance of an acceptable level of health empowers every individual to lead a socially and economically beneficial life.

## Nursing Implications

Since care is moving toward being more preventative and holistic, these findings remain beneficial to nurses of all sectors. Leavell and Clark's (1975) levels of prevention model notes that positive health, which inspires the achievement and maintenance of an acceptable level of health empowers every individual to lead a socially and economically beneficial life. Nurses who specialize in maternity, pediatrics or public health can also use these studies as a foundation for lobbying for more public assistance to pregnant mothers lacking familial, financial and social support.

It is essential to recognize the key elements and factors that contribute toward a successful community doula program. More research is necessary to gain a solid understanding of the key elements that contribute toward making a community doula program successful. Further research to gain knowledge of the cost effectiveness of community doula programs as they related to hospital readmissions is also recommended.