

Protocol for a Systematic Review of “*Lotus Birthing Method: Friend or Foe*”

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Abstract:-

Introduction: Lotus birth or umbilical non severance is practice of leaving the umbilical cord uncut with placenta and the baby are still connected until they separate naturally, that occurs typically up to 10 days after birth. In order to lessen odours, the placenta is frequently wrapped in cloth or a bag and may also be treated with salts, lavender oil, rosemary or other herbs. There is very less literature published on the lotus birth method. Newborn specialists might be at a loss when advising mothers who choose to have a lotus birth due to the lack of available literature. There is a need to better understand the consequences or benefits of this method. **Purpose/objective:**(a)To identify The effectiveness of lotus birthing method on health outcomes among neonates. (b) To assess its efficacy on neonatal clinical course like increase in hemoglobin levels, improved iron stores and favorable infant development. **Methods:** A systematic review on randomized control trails, reviews, and research articles will be conducted. Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) will be adopted and literature search will be conducted in Pub Med-Medline, CINAHL, Science Direct and Pro-Quest. The search will include a period of 2013-2023. Studies will be included based on predetermined inclusive criteria. **Results:** A descriptive synthesis of the findings of the selected studies will be carried out which will be presented in narrative summary with statistical findings incorporated. **Conclusion:** Pediatricians might not be familiar with how to handle this situation because this birth practice is typically not seen in standard obstetric care, which results in inconsistent messaging to families and care teams. Lotus births are uncommon events, and there is little academic literature on the subject, so it's critical to keep gathering evidences that will educate healthcare professionals who look after newborns.

Keywords:- Lotus birth, umbilical non-severance, Health safety, Newborn baby, placenta, women.

I. INTRODUCTION

In a lotus birth, the umbilical cord is left uncut and the baby is kept connected to the placenta after birth. The placenta and the umbilical cord are anticipated to naturally separate from the baby.¹

This practice of cutting the umbilical cord has been practiced since the beginning of time firstly on the grounds of tradition and then based upon scientific evidences in the obstetrical centers all around the western countries. But recently, certain thoughts have opposed this tradition. This alternative viewpoint have contended that cutting the cord while it is still pulsating could damage the newborn as the birth is viewed from the perspective of the unborn baby. It is argued that this would be preferable to postpone closing of the vessels of the cord for at least few minutes so that a large portion of the blood contained in these vessels (foetal blood) can return from the placenta; in doing so, the newborn would receive the maximum amount of iron and haemoglobin reserves. This means waiting until the chord has naturally stopped beating rather than cutting off the circulation of the foetus and placenta and, consequently, the oxygen supply that is still being delivered to the baby through the blood in the cord. In this scenario, the cord wouldn't be severed until its natural activities have stopped. The so-called "Lotus Birth" theory is in part a result of this debate.²

The phrase was first used in 1979 to refer to the practise of leaving the placenta attached to the newborn after it was ejected until it separated naturally, which usually happens 3 to 10 days after birth. Additionally, in 1974 clair lotus day was first one to report the practice in chimpanzee who did not separate the placenta and by natural process the umbilical cord is expected to separate on its own.³

Earlier the lotus birth practice was first introduced in home births but now gaining momentum during cesarean births also. Though the incidence of lotus birth is unknown, the practice is quite advocated in certain parts of United states, Australia, Turkey and Italy. The first ever case of lotus birth was reported in Australia in the year of 2014, however, around 100 women per year have requested to practice this “integral birthing method” or “lotus birthing”.⁴

The placenta and the foetus are said to be one unit because they were created from the same cells, according to those who supported this way. Therefore, if the infant is not artificially removed from this aspect of itself, it will have a stronger immune system since the umbilical cord will carry all of the "vital force" stored in the placenta as well as a significant volume of blood to the baby. It is claimed that even babies born via caesarean section gain advantages. Additionally, proponents of this approach assert that if the mother experienced emotional distress or stress during pregnancy, the infant won't show symptoms of "residual stress"; on the contrary the babies born this way are seen as more "calm and well balanced".⁵

The standard operating procedure involves that the placenta once delivered, washed, wrapped in a clean absorbant material for 2-3 hours initially. After that placenta be placed in a sieve of appropriate size will be preserved the way it is for atleast 2 days and it can be extended upto 2 weeks. The sieve is then placed in a appropriate bowl. In order to reduce the unpleasant order or decomposing of tissue, it is treated with sea salt (at least once a day) and ginger or rosemary herbs. Doing so will conserve the placenta for weeks before decomposition. The procedure of salting should be continued till umbilical cord detaches, meantime it should be examined daily. Additionally, if moisture remains on the placenta, the salting process can be extended twice a day.⁶

In the early days following birth, a lotus birth makes sure that the mother and her baby are protected from the harmful affects of the outside world. This method aims to start breastfeeding, facilitate bonding, and start physical, emotional, psychological, social, and spiritual interactions between the mother, the newborn, and the nuclear family.⁷

It is unknown, though, whether lotus birth carries any hazards or increases the likelihood of issues for the newborn. The newborn is especially susceptible to infection during the postnatal period since there is no placental circulation.⁸

After delivery, the placenta is no longer viable and its blood no longer circulates. Because of this, the placenta may be an infection source, and the virus might theoretically transmit to the newborn. However, there is no solid evidence of the frequency or severity of this occurrence. Furthermore, if the umbilical cord is mistakenly pulled during the lotus birth, the baby may be exposed to trauma. Including lotus birth, delayed umbilical cord clamping should not be used. After delivery, the placenta is no longer viable and its blood no longer circulates. Because of this, the placenta may be an infection source, and the virus might theoretically transmit to the newborn. However, there is no solid evidence of the frequency or severity of this occurrence. Furthermore, if the umbilical cord is mistakenly pulled during the lotus birth, the baby may be exposed to trauma. Including lotus birth, delayed umbilical cord clamping should not be used.

II. RATIONALE

As per American College of Obstetricians and Gynecologists, 2017, in cases of maternal or neonatal emergencies, such as the need for immediate neonatal resuscitation, maternal hemorrhage, placental abnormalities like placenta previa or placental abruption, and placental attachment abnormalities, delayed umbilical cord clamping—including lotus birth—should not be used. Although lotus birth is growing more and more popular among some, it is relatively rare, and very little research has been done to examine its use, effects, and advantages. Maternity care professionals might not have information available to inform care and clinical decisions given the rarity of the request for a lotus birth.⁹

III. OBJECTIVES

To identify the effectiveness of lotus birthing method on health outcomes among neonates

IV. METHODS

PRISMA guidelines will be followed. Registration is already done in the International Prospective Register for Systematic Reviews. (**PROSPERO Registration no.CRD42023427876**).

V. ELIGIBILITY CRITERIA

This systematic review will include papers only published in english language between 2008 and 2023, including only published English language papers.

- Lotus birth, umbilical nonseverance, Health safety, Newborn baby, placenta will be searched in search engines like pubmed- Medline, OVID, CINAHL plus medline, science direct using key words.
P- Neonates across all types of race, region and country
I-Lotus birthing method
C-Routine care or no specific intervention
O-Health benefits for newborn baby like increase in hemoglobin levels, improved iron stores, favorable infant development and better mother baby bonding. The relevant studies will also be scrutinized for title or abstract having additional key words.
- Search engines will be checked using additional keywords like Cochrane library, scopus, science direct, pubmed, ovid, CINAHL and medline
- The final steps will be searching from references given in major article.

The criteria for selecting the studies utilized in this review will be as mentioned below:

- Only peer review articles which are published
- Using accessible studies from electronic databases
- **Study design:** RCTs, Non RCTs will be used. The observational studies will be included for the review.
- **Intervention:** Only the studies consisting of women having lotus birthing method (umbilical non severance) will be selected as main variable to be included in the study.
- **Setting:** The selected studies can be from community or done in clinical setting will be accepted

- **Outcomes:** The study articles will be used if they have described either one or more health benefits for newborn baby like better iron storage, hemoglobin value normal, improved mother and baby bonding.
- **Language:** Only articles published in English language
- The research data will be screened using studies as suggested by JBI (Joanna Briggs Institute) manual. Studies that have described lotus birthing method or advocated the use if lotus birth can be included. Zotero or medline referencing will be used to eliminate the duplicate articles from the search before uploading them. The paper titles and their abstract will be first reviewed by two independent reviews to assess the applicability to the topic in review.
- The exclusion criteria will be the abstract from conferences or only abstract without full text and the grey literature.

VI. SOURCE OF INFORMATION

The PICO guidelines will be followed to search the databases like pubmed and science direct after this title and abstracts will be searched with the help of alternative keywords. The search will be extensive by using clear approach for searching in science direct databases, CINAHL plus databases, medline or Cochrane library.

VII. SEARCH STRATEGY

A. Science Direct Database:

Lotus birth OR lotus birthing method OR umbilical non severance AND {neonatal health} AND {randomized control trials} Filters: Research article, Year: 2008-23.

B. Pubmed

(Placental non detachment) OR (lotus birthing method) AND newborn babies Filters: Clinical trial, Randomized control trials, Year:2008-2023.

C. Study Records

Data management: Zotero software will be utilized to eliminate the duplicates. It also serves the purpose of maintaining details of references of this review.

D. Selection Process

The article title and main study will be scrutinized by two independent authors during the screening process on the basis of their applicability in the review. After reviewing the abstract full content review will be done as per the eligibility of inclusion. The third author will be approached if there is any disagreement arises between two independent authors review regarding any abstract or full text.

E. Data Collection Process

The selected publications will be evaluated as per the clinical appraisal criteria for RCTs given by JBI (Joanna Briggs Institute Manual) for their quality. As mentioned earlier any disagreement between two reviewers will be cleared with the help of third reviewer. The data will be extracted from the selected studies using Cochrane data extraction form.

F. Data Items

The data will be extracted from the studies with variables like lotus birthing method benefits for newborn babies which includes increase in hemoglobin levels, improved iron stores, favorable infant development and better mother baby bonding where newborn baby will be taken as population.

G. Outcomes And Prioritization

In this review the effectiveness of lotus birthing method will be assessed on selected health outcomes in newborn babies like improved hemoglobin levels, better iron stores less chance of anemia or jaundice, favorable development and mother- baby bonding. So, the main outcome of the review is to assess whether delivery by lotus birthing method after birth of baby or keeping the umbilical cord intact after birth till natural process of detachment is effective.

H. Individual Studies Bias Risk

The Cochrane assessment for risk bias assessment in RCTs will be utilized for assessing individual studies in the review.

I. Data Synthesis

The study findings will be based on the objective. Additionally, the completion and presentation of descriptive synthesis in form of a narrative summary in tabular format. Standard mean difference (SMD) will be used for meta-analysis for the variables like improved hemoglobin levels, better iron stores less chance of anemia or jaundice, favorable development and mother- baby bonding as well as I2 statistics will be used to assess heterogeneity.

- **META-BIAS (es):** Publication bias will be checked for studies included in this review.
- **CUMULATIVE EVIDENCE CONFIDENCE:** The GRADE pro approach is utilized to assess the certainty of evidence.

VIII. CONCLUSION

There are many ethical questions raised in practice of lotus birthing method. Be it for the baby or mother, this method poses certain risk and require consideration. The only ray of shine in this method is that it advocates natural birth. However, the women requests to opt for lotus birth as their right to choose the preferred birthing option. As a healthcare worker, necessary information must be provided to pregnant women choosing lotus birthing method as mode of delivery for their baby. As the newborn baby is highly susceptible for developing infection as this stage, keeping a dead tissue along with can provide access to micro-organization present in environment. Additionally, the ethical principle of doing no harm appreciates control's over own body. Furthermore, the implementation of this method in the scenario where the baby is at high risk must be scrutinized for assessment of benefits, burdens, and harms in health care decision-making.

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