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**Capstone Project**

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ANALYSIS AND APPRAISAL

Is elective labor induction a predisposing factor to unplanned cesarean section?

**Problem**

Cesarean section is a very costly procedure, both financially and health-wise. Millions of dollars are spent annually by insurance companies on cesarean section. Reducing the incidence of cesarean sections being done would therefore save our country a lot of money which can be used for improving other essential health services. In this research, it is thought that elective induction of labor in gravid women increases the chances of her having a cesarean section done on her. The major problem in this research study is labor induction’s risk of ending up as a cesarean section in the theatre (Danilack, V. A., et al, 2016). According to previous researches done and data that have been collected, there is a relationship between induced labors and prevalence of cesarean section. Most women who were electively induced into labor developed complications which required emergency cesarean section as an intervention. I want to make it very clear that labor induction is not a bad thing. But, labor should only be induced if necessary. There are valid indications for labor which mainly involves the passage, the passenger and power. The passage is the pelvis, both the inlet and the outlet. The passenger is the fetus. The power is the uterine muscle contractions, which involves ‘pushing’ by the pregnant woman. Labor should take a natural course. The fetus matures, it rotates into an appropriate position, uterine contractions begin, and the cervix effaces then dilates, the fetus starts descending and maneuvering through the pelvis with frequent contractions. This process is controlled by natural hormones such as oxytocin, elastin and prolactin. The positive feedback mechanism between oxytocin and the posterior pituitary gland enables frequent and powerful muscle contractions. When labor is induced naturally, this process no longer becomes natural. It involves injecting exogenous oxytocin artificial rupture of membranes and even external cephalic versions. Doing this natural mechanism manually puts both the fetus and mother into a high-risk category. Artificial rupture of membranes inoculates microorganisms into the amniotic fluid which might cause chorioamnionitis in the antenatal period and neonatal sepsis during the postnatal period. Induced labor can develop into a complicated process. This is because a lot of things are likely to go wrong. The exogenous oxytocin might be overestimated leading to powerful contractions that can even rupture the uterus (Jou, J., et al 2015). The result will be emergency cesarean section to save mother, and the baby if possible. The unnatural course means that even the fetus is not ready to come out. Cesarean has a lot of disadvantages too. Avoiding elective labor induction is a way of preventing cesarean sections. Women who undergo cesarean section usually have a limited number of pregnancies they can carry with a period. This can be a big issue especially when a mother desires to have more babies. It could also lead to secondary subfertility. Elective labor induction increases the risk of cesarean section. This is a problem that can be avoided with appropriate interventions done by the medical fraternity and the patients.

**Purpose**

The purpose of this research is to prove that elective labor induction indeed increases the chances of doing a cesarean section in a pregnant woman. It would also be essential to study and observe. If this study hypothesis is wrong then we will be glad to know that labor induction does not influence the probability of cesarean section (Kjerulff, K. H., et al 2017). This will be a significant contribution to the medical fraternity, especially in the obstetrics and gynecology specialty. It will enable nurses and doctors to advise pregnant women appropriately. One of the World Health Organization is to provide healthcare services based on evidence. In other words, the World Health Organization encourages the evidence-based medical practice. If the study finds out that labor induction increases the risk of cesarean section then interventions will be put in place towards correcting that. Another purpose of this research is to compare this research study with previous researchers that have been done on different populations. It will help validate the earlier works that have done on this project. There is a possibility that the results might differ from previous studies. If this is the case then, we will have to find out why and when did the difference come into play. Another purpose is of this research study is to find out the level of patient awareness on the process of labor induction. This is in terms of its indications, its advantages and its disadvantages. This will be an indication of the need for patient education and awareness campaigns if they will have to be done. The expertise of the medical staff will also be put to test, both doctors and nurses (Danilack, V. A., et al, 2016). Their level of understanding of the ‘this and that’ about labor induction will also be efficiently evaluated in this research study. Cesarean section is also a different entity altogether. It will be crucial to know the leading causes that make most women today undergo cesarean sections. The link between labor induction and cesarean section will then be evaluated. Just imagine all the advantages of having a woman undergo the natural birth process, spontaneous vertex delivery. There will be very little complications and both infant and maternal morbidity and mortality will significantly go down. The outcome will be a healthier nation. And that should be our sole purpose in this world, to leave it a better place than we found it. I am hopeful that the research hypothesis will be supported by the observations and results that will be recorded. Reducing the cost of health is also a purpose in this research. A lot of money is used for management of complications of birth. Mothers and children are very delicate species and they should be protected from harm at all cost. This will maintain the continuity of humans. Our reproductive health is paramount for human survival. The expected outcome is that the number of cesarean section occurring after labor induction goes down significantly.

**Solution**

Finding a permanent solution to this is not easy. But if proper interventions are put into place then positive results will be achieved. In my research proposal, I mentioned some interventions that can be made to reduce the incidence of elective induction of labor and subsequent cesarean sections done. I also believe that the interventions will only be valid if they are done appropriately with a dedicated team of medical professionals such as midwives, nurses in charge and specialists including obstetricians and gynecologists. One of the solutions was that, nurses and nursing students to be adequately educated on the appropriate technique of cervical inspection, from effacement to full dilatation, in pregnant women at term. This will be a step in the right direction just because, labor will only be induced in pregnant women who genuinely require the process as a medical intervention. Educating our nurses is about cleaning our house from the inside. We first deal with our medical staff before getting to the patients. If this intervention is put into action, then it will most probably be a long-term solution. Nurses will be taught on how to fill partographs and how to interpret them correctly. They will only induce labor with valid indications that are present in the pregnant women (Jou, J., et al 2015). Algorithms for labor induction will also be provided and made accessible to the nurses always. I really hope that nurse education will be solution to this problem. Another proposed intervention in the research study was patient education. Patient awareness is also as critical as nurse’s training is. Well informed patients will not allow labor to be induced without sufficient indications. This will only be possible when women are taught about the dynamics of labor, indications for induction of labor and the risks and disadvantages associated with labor induction. Patients are usually having a big say whenever a medical intervention is to be done to them. This is because the medical practitioner must ask for consent from the pregnant women. Educated women will give permission only when appropriate. When this is put into act then I expect that the number of elective labor induction will reduce. Women should also be appropriately educated and advised on the indications, benefits, and risks of having a cesarean section done on them. Patients who understand the ‘nitty gritty’ of the process of labor also have the upper hand. Whatever intervention is put in place, the primary objective is to reduce the number of elective labors induce and consequently reduce the number of the cesarean section. That will be the solution that we want to see come into reality. As mentioned earlier, a permanent solution is not an easy thing to achieve (Kjerulff, K. H., et al 2017). All relevant stakeholders have a part to play to obtain a permanent solution. We should endeavor to provide better health care each day. Reducing elective labor induction will mitigate unnecessary cesarean sections.

**References**

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Did you change topics? Last week you wrote about sepsis. This paper actually is more aligned with last weeks paper requirements. You are short on sources- you need 15 of which at least 8 are from peer reviewed journals. Many of your claims and argument points are lacking justification and supporting evidence. This paper should be heavily geared towards incorporating your literature review into the development of your paper. Otherwise, good start.