

Effectiveness of Betadine Ointment versus Lavender Oil Application on Episiotomy Wound Healing Among Post Natal Mothers Admitted in PNC Ward of Selected Hospitals

Christina Michael Martin

M Sc Nurse Ob-Gy Specialty / Clinical Instructor/ Sadhu Vaswani College of Nursing / 10, 10-1, Koregaon Road, Pune 411001, Maharashtra, India

Abstract: ***Background:** Pregnancy brings a new meaning to the concept of beauty. The feeling of carrying a little soul inside within you is magnificent.¹ But as she experiences this happiness along with it, she has to bear an immeasurable pain through a process of delivery. During this process of delivery she has to bear an incision made on the perineum called as Episiotomy.² Episiotomy wound needs care and prevention of infection. **Objectives:** 1.To assess the effectiveness of betadine ointment on episiotomy wound healing among PNC mothers .2.To assess the effectiveness of lavender oil application on episiotomy wound healing among PNC mothers.3.To compare the effectiveness of betadine ointment and lavender oil application on episiotomy wound healing.4.To find the association between episiotomy wound healing with the selected demographic variables such as age, educational status, economical status. **Method:** A comparative evaluative approach for Quasi experimental research design was considered. 60 samples were selected through probability simple random technique and were assessed through Numerical pain scale for pain and REEDA scale for infection and structured questionnaire for demographic information. **Settings:** PNC ward of selected hospitals. **Results:** Researcher applied paired t-test for the assessment of effectiveness of Lavender oil application on pain score of PNC mothers. Corresponding p-values were 0.000, which are small (less than 0.05). Lavender oil application was proved to be significantly effective in reducing the pain of PNC mothers .Researcher applied two sample z-test for comparison of REEDA scores of Lavender oil and Betadine ointment groups. Corresponding p-values were small (less than 0.05) at all the timepoints. This indicates that the Lavender oil application is significantly better than betadine ointment on episiotomy wound healing. **Conclusion:** The study concluded that it reduces the chances of infection, reduces pain and uneasiness caused due to incision made on the perineum. Micro reports of culture and sensitivity have also proven the effectiveness of the lavender oil as it stated that no organism was found in the lavender group of patients.*

Keywords: Episiotomy wound, Lavender oil, betadine ointment, REEDA scale, Numerical Pain Scale

1. Introduction or Background

Every single mother wants to deliver and have normal pregnancy and enjoy the postnatal period with the newborn. But if she experiences pain during her postnatal period due to the incision at the perineum she may not be able to cater proper care to the newborn and to herself.³

WHO also recommends not to give episiotomy as a routine method but there are still hospitals in India which highly recommend use of episiotomy to widen the introitus, shorten the second stage of labor and use as a preventive measure to avoid lacerations.⁴

These incision made on perineum is painful, needs care to prevent infection.⁵ Thus there are various methods to care for the episiotomy wound but the researcher used alternative method to care episiotomy wound to prevent infection and also reduce pain. The researcher used betadine ointment versus Lavender oil application on episiotomy wound to reduce infection and pain.

2. Material and Methods

Objectives

- To assess the effectiveness of betadine ointment on episiotomy wound healing among PNC mothers.

- To assess the effectiveness of lavender oil application on episiotomy wound healing among PNC mothers.
- To compare the effectiveness of betadine ointment and lavender oil application on episiotomy wound healing.
- To find the association between episiotomy wound healing with the selected demographic variables.

Hypothesis

H₀: There will be a no significant difference on the episiotomy wound healing after the application of lavender oil and betadine ointment among the betadine group and lavender group

H₁: There will be a significant difference on the episiotomy wound healing after the application of lavender oil than the betadine ointment

H₂: There will be significant difference on the episiotomy wound healing after the application of betadine ointment than the lavender oil.

Research methodology:

Research approach: Comparative evaluative approach

Research design: Quasi- Experimental Research Design

Setting of the study: PNC ward of selected hospitals

Variables of the study:

Volume 8 Issue 5, May 2019

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

Independent variable: Betadine ointment and Lavender oil

Dependent variable: Episiotomy wound healing

Population: Postnatal mothers admitted in PNC ward

Sample: PNC mothers

Sample size: 60 sample

Sampling technique: probability simple random sampling technique

Tools and techniques: The tools were designed according to the objectives laid down. It was divided in two sections:

Section I: Demographic questions which included age, educational and economical status.

Section II: Standard REEDA scale and Numerical Pain scale.

These tools were used twice a day to assess the effectiveness of the betadine and lavender oil application and scoring were given accordingly.

Study findings based:

Section I – Description of samples (PNC mothers) according to their personal characteristics in frequency and percentage.

Section II – Analysis of data related to effectiveness of betadine ointment on episiotomy wound healing among PNC mothers.

Section III – Analysis of data related to effectiveness of lavender oil application on episiotomy wound healing among PNC mothers.

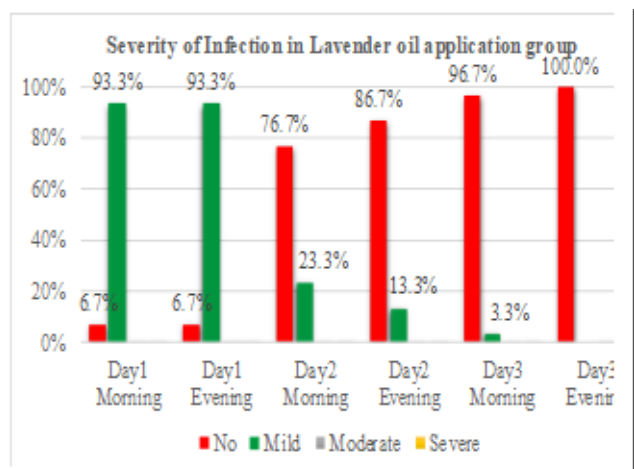
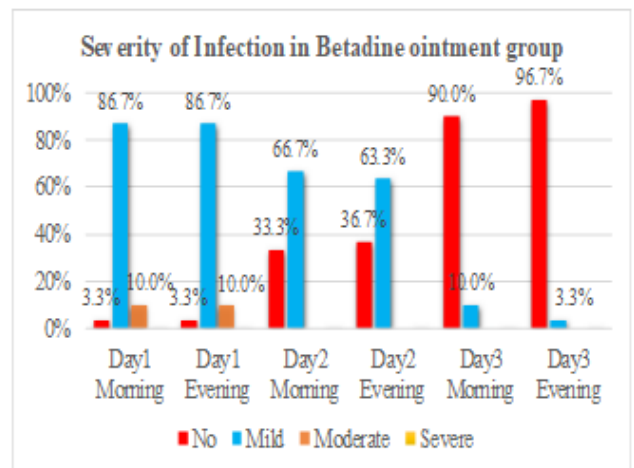
Section IV – Analysis of data related to comparison of the effectiveness of betadine ointment and lavender oil application on episiotomy wound healing.

Section V – Analysis of data related to the association between episiotomy wound healing with the selected demographic variables.

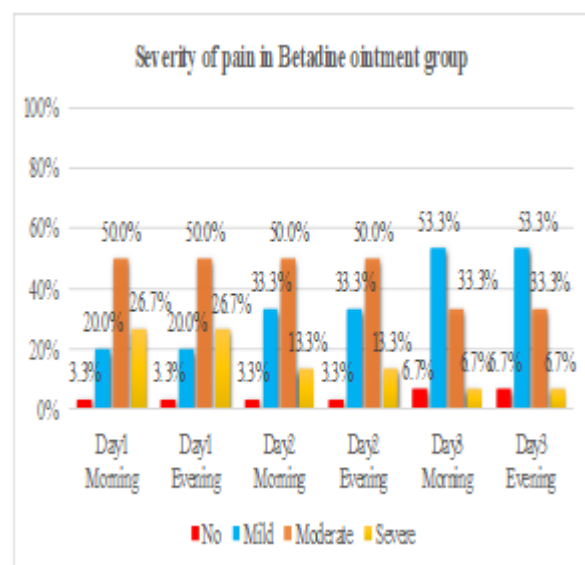
3. Findings

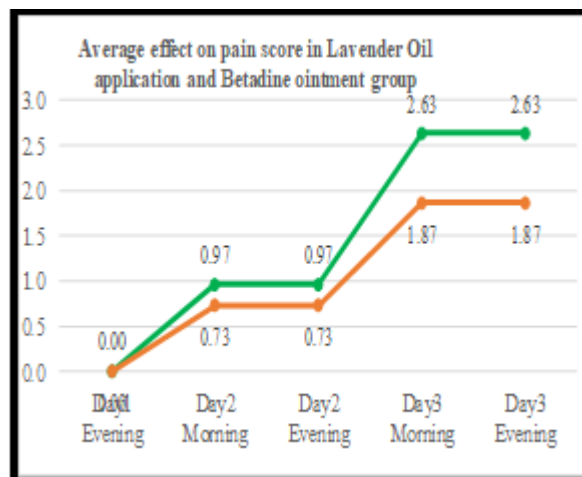
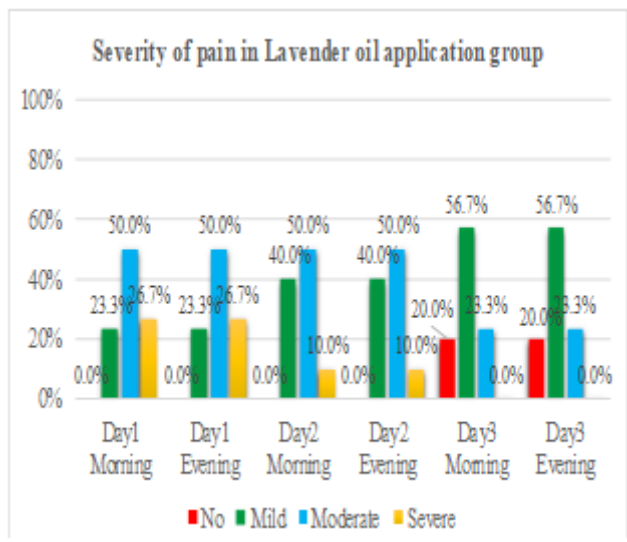
The present study was conducted to assess the comparative effectiveness between betadine ointment and lavender oil application in the selected hospitals. The findings of the study have been discussed on the objectives of the study.

Effectiveness of betadine ointment and Lavender oil on REEDA score among PNC mothers:



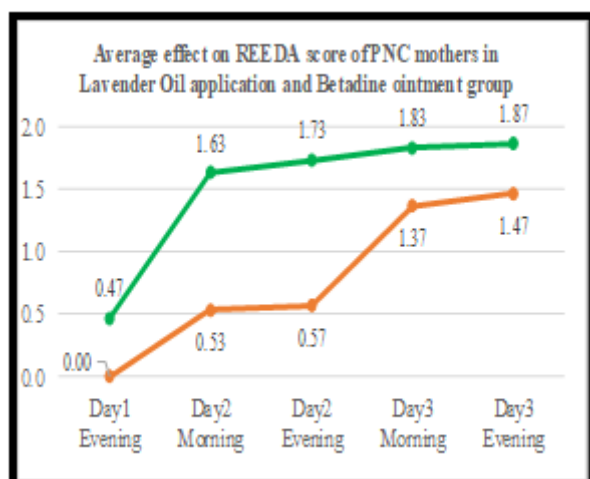
Effectiveness of betadine ointment and Lavender oil on pain score among PNC mothers:





Assessment of effectiveness was based on the REEDA score and Numerical pain score. Average effect in REEDA score for lavender oil application group on day 1 evening was 0.47 which increased to 1.63, 1.73, 1.83 and 1.87 on day 2 morning, evening and as such till day3 respectively. And average effect in REEDA score for betadine group on day 1 evening was 0.00 which increased to 0.53, 0.57, 1.37 and 1.47 on day 2 morning, evening and as such till day3 respectively.

Z values for comparisons were 3.1, 5.9, 6.2, 2, and 1.8 for three days morning and evening. Corresponding p values were small less than 0.05 at all time points thus indicating that Lavender oil application is significantly better than betadine ointment on wound healing. And also on pain scale the corresponding p values were less than 0.05 which thus proved that pain level is reduced in lavender oil than betadine ointment.



4. Conclusion

Episiotomy is the incision made on the perineum which needs to be cared and treated under aseptic technique. As it have consequences of increased morbidity rates due to infection, unattended care, and poor hygienic condition. Thus use of alternative medicine like lavender oil, will give good results in healing and curing the wound. As the studies have concluded that it reduces the chances of infection, reduces pain and uneasiness caused due to incision made on the perineum. Micro reports of culture and sensitivity have also proven the effectiveness of the lavender oil as it stated that no organism was found in the lavender group of patients. It is thus easy available, cost effective and advantages in prompt healing of the episiotomy wound.

5. Conflict of Interest

None.

6. Source of Funding

- 1.Kelkar foods and fragrance.(Dalmatia/ Austria)
2. SKNMC AND GH (Narhe /Pune)
3. RCP and Pune Minority President

7. Ethical Clearance

The statement was presented before the ethical committee members and was duly approved by the Ethical Committee. The pre requisites were fulfilled and the permission of the selected hospitals was procured. The concerned respective authorities and department in charges were briefly informed about the study. The investigator before the procedure and data collection informed the samples and explained their role in the study. Consent of the patient was obtained prior and confidentiality regarding the samples details was maintained. All the ethical principles were taken into consideration for the study.

8. Discussion

The present study was conducted to assess the comparative effectiveness between betadine ointment and lavender oil

application in the selected hospitals. The findings of the study have been discussed on the objectives of the study. Assessment of effectiveness was based on the REEDA score and Numerical pain score. Average effect in REEDA score for lavender oil application group on day 1 evening was 0.47 which increased to 1.63, 1.73, 1.83 and 1.87 on day 2 morning, evening and as such till day3 respectively. And average effect in REEDA score for betadine group on day 1 evening was 0.00 which increased to 0.53, 0.57, 1.37 and 1.47 on day 2 morning, evening and as such till day3 respectively.

Z values for comparisons were 3.1, 5.9, 6.2, 2, and 1.8 for three days morning and evening. Corresponding p values were small less than 0.05 at all time points thus indicating that Lavender oil application is significantly better than betadine ointment on wound healing. And also on pain scale the corresponding p values were less than 0.05 which thus proved that pain level is reduced in lavender oil than betadine ointment.

Nursing implications:

1. Application of lavender oil should be initiated as early as after the episiotomy suturing.
2. Care with lavender oil should be continued till the patients are admitted after providing perineal care under aseptic technique.
3. Awareness of use of lavender oil with its advantages and cost effectiveness should be imparted among patients and health care personnel's.

Nursing education:

1. As a nurse educator or health care facilitator advantages of lavender oil should be taught to the nursing students and staff.
2. As episiotomy is major factor for morbidity and mortality ratio among postnatal mothers patients should be encouraged for using lavender oil which is easily available and accessible through awareness or health education
3. Importance of episiotomy hygiene should be empowered by making available sources for getting lavender oil.

Nursing administration:

1. Nursing administration should ensure that hospital is providing aseptic perineal care.
2. Nursing administration should ensure that application of lavender oil on episiotomy wound is effective and can be applied in their general practices.
3. Nursing administration should ensure that awareness is made regarding the advantages, cost effectiveness and prompt wound healing through lavender oil.

Nursing research:

Nursing researches are conducted to expand the body of knowledge. It just not refines the study but also gives opportunity to broaden the scope of nursing. Thus nurses should take initiative and develop interest to carry out researches.

A comparative study along with other essential oils can be done to evaluate the effectiveness amongst the primi mothers.

Effectiveness of lavender oil as aromatherapy during second stage of labor.

Effectiveness of lavender oil dressing on patient's undergone caesarean section.

9. Limitations

Few limitations were faced while conducting the study:

1. The study was limited only to immediate post natal mothers with normal delivery who were admitted for three days in PNC ward.
2. As the study was time bound, time was limited for data collection.

10. Recommendations for further study

While conducting this study through experience and findings noted the following recommendations are offered for further researches:

- A study can be done to see the effectiveness of lavender oil application as a dressing material on patient's undergone caesarean section.
- A study can be conducted to see the effectiveness of lavender oil aromatherapy to reduce anxiety among antenatal mothers during first stage of labour.
- A comparative study can be conducted to assess the effectiveness of lavender oil versus chamomile oil or other essential oils on the episiotomy wound.

References

- [1] Momjunction.onesignal.com, 2018. <http://momjunction.onesignal.com>
- [2] Annama Jacob A comprehensive textbook of midwifery and gynaecological nursing third edition, Jaypee publication New Delhi. p. 218
- [3] Margaret Myles A textbook for midwives fifth edition, E & S Livingstone ltd. Edinburgh and London. p.617
- [4] Bennet and Brown N Myles Textbook for Midwives 11th edition. ELBS publications, Churchill Livingstone. p.204.
- [5] Zeutrablbl Gijnakol. Who invented the episiotomy? On the history of episiotomy. National Centre for Biotechnology Information. 1993; 115(4):188-93.
- [6] Räisänen S, Vehviläinen-Julkunen K, Gisler M, Heinonen S. A population-based register study to determine indications for episiotomy in Finland. International Journal of Gynecology & Obstetrics. 2011;115(1):26-30.
- [7] D.C. Dutta Textbook of Obstetrics sixth edition. New central book agency private limited kolkatta. p. 570.
- [8] Kamel A, Khaled M. Episiotomy and obstetric perineal wound dehiscence: Beyond soreness. Journal of Obstetrics and Gynaecology. 2014;34(3):215-217.

- [9] How to Care for an Episiotomy Postpartum . wikiHow. 2018. <http://m.wikihow.com/Care-for-an-Episiotomy-Postpartum>.
- [10] Tabassum Barnagarwala [Internet]. The Indian Express. 2018 [cited 21 April 2018]. Available from: <http://indianexpress.com/profile/author/tabassum-barnagarwala/>
- [11] "Journal of Health population and Nutrition", Biomed central publication.213-225 ncbi.nlm.nih.gov - Google Search]. Google.com. 2018 [cited 21 April 2018]. [https://www.google.com/search?ei=c7naWqCAHMT8vgSm3ryAAQ&q="+Journal+of+Health+population+and+Nutrition"%2Cbiomed+central+publication.213-225+ncbi.nlm.nih.gov](https://www.google.com/search?ei=c7naWqCAHMT8vgSm3ryAAQ&q=)
- [12] Maternal death [Internet]. En.wikipedia.org. 2018 [cited 21 April 2018]. Available from: https://en.wikipedia.org/wiki/Maternal_mortality_rate
- [13] D'Anci K. Nutrition Updates. Nutrition Reviews. 2012;70(12):E1-E2.
- [14] Midwifery [Internet]. En.wikipedia.org. 2018 [cited 21 April 2018]. Available from: <https://en.wikipedia.org/wiki/Midwifery>
- [15] 9. Blog | Essential 3 [Internet]. Essential 3. 2018 [cited 21 April 2018]. Available from: <https://essentialthree.com/blog/>
- [16] Silva.G, Luft Cand Lupardelli.A, et.al.Antioxidant, analgesic and anti inflammatory effects of lavender essential oil.2018
- [17] Maternal death [Internet]. En.wikipedia.org. 2018 [cited 21 April 2018]. Available from: https://en.wikipedia.org/wiki/Maternal_deaths Health statistics and information system; MMR (per 10000 live birth) WHO, Retrived June 17, 2016. En.m.wikipedia.org
- [18] Oxford Little Oxford Dictionary Indian Edition, ISBN, New Delhi. p. 29, 217, 391, 534
- [19] Denise F Polit, Cheryl Beck Nursing Research generating and assessing evidence for Nursing Practice. eight edition. Wolters and Kluwer Health New Delhi. p. 757, 105.
- [20] Polit Beck Nursing research generating and assessing Evidence for Nursing Practice eighth edition. Wolters Kluwer Publications New Delhi. p.106
- [21] ScienceDirect.com | Science, health and medical journals, full text articles and books. *Scencedirect.com*, 2018. <https://www.sciencedirect.com/>.
- [22] Eghdampour, Jahdi F, Kheyrkhah, Hgani H.The effect of Aloe vera ointment in wound healing of episiotomy amog primiparous women.2013;15(35):25-31
- [23] www.tandfonline.com/doi/abs/10.1080/14767058.2016.1275549?journalcode=ijmf20.
- [24] Eghdampour F, Jahdie F, Kheyrkhah M, Taghizadeh M, Naghizadeh S, Hagani H. The imoact of alove vera and calendula on perineal healing after episiotomy in primiparous women. A randomized clinical trial.2013;2(4):279-286
- [25] Journal of the American Academy of Dermatology, volume 68, issue 4, April 2013, page: 127-135, www.sciencedirect.com/science/article/pii/S0190962211008383
- [26] An International journal of Obstetrics and Gynaecology, volume 79, issue 10, oct 1972, pg: 951-953, onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.1972.tb12194.x/full
- [27] Nethravathl V, Kshirsagar N S, Kakade S.Effectiveness of infra red lamp therapy on healing of episiotomy wound on postnatal mothers.Health science journal.2015;9(6):219-225.
- [28] Baruah B, and Raddi S. A study to assess the effect of infra red radiation (lamp) in episiotomy wound healing among postnatal mothers.Journal of SAFOG with DVD, (2010), 236-238
- [29] Ginekol A . Efficiancy of Cikatridina spray for healing of episiotomy and perineal rupture.NCBI.2011;50(3):20-5
- [30] Episiotomy rates vary widely worldwide health and social care essay *essay-billingtoncove.billingtoncove.2018*.<https://billingtoncove.com/2017/10/episiotomy-rates-vary-widely-worldwide-health-and-social-care-essay>.
- [31] Sheikhan. Complimentary Therapies in Clinical Practice. International journal 2012;18(1) : 66-70
- [32] Singh G.Effect of lavender oil and betadine ointment on episiotomy. Indian Journal of Nursing research and development.2016;7 (2):61-7
- [33] Henci Goer, " a guide to the medical literature" greenwood publishing.www.vaccineriskawareness.com
- [34] Vakillian K.Atarha M, Bekhradi R. & Chaman R.Healing advantages of lavender essential oil during episiotomy recovery: A clinical trail.Complementary therapies in clinical practice 17, 1 (2011), 50-53
- [35] Beulah M.Effectiveness of lavender oil sitz bath on episiotomy wound healing.TNNMC JOGN.2013.1(2)/117-20
- [36] Vakilian K et.al.Complementary therapies in clinical practice.2011;1(17), 52-54
- [37] Koulivand P, Ghadiri M, Gorji A.Lavender and nervous system.evidenced based complementary and alternative medicine.2013, (2013), 1-10
- [38] Marzouk T, Barakat R, Ragah A, Badria F and Badawy.Lavender-thymol as a new topical aroma therapy.preparation for episiotomy. A randomized clinical trial. Journal of obstetrics and gynaecology.35, 5(2014), 472-475
- [39] Suguna T C.Effectiveness of lavender oil on inflammation process.National Journal of nursing .2013; TNNMC. 1(2) :25-8
- [40] Suguna T C.Effectiveness of lavender oil on inflammation process.National Journal of nursing .2013; TNNMC 1(2)
- [41] WoelK H, Schlafke S.A multicenter double blind randomised study of lavenderoil preparation silexan in comparison to lorazepam for generalised anxiety disorder.NCBI.2010;17(2):94-9
- [42] Dale A, Cornwell S, .The role of lavender oil in relieving perineal discomfort following childbirth. A blind randomized clinical trial.NCBI.1994.19(1): 89-86.
- [43] Saadia Z .Rates and indicators for episiotomy in modern obstetrics-a study from Saudi Arabia.Materia socio medica 26, 3(2014), 188
- [44] Using evidence to reduce the rate of episiotomy in Dubai hospital-2/RCM.RCM.org.UK, 2018.<https://www.rcm.org.uk/learning-and->

- career/learning-and-research/ebm-articles/using-evidence-to-reduce-the-rate-of-0.
- [45] Maryann H.Brombeg CNM.Presumptive maternal benefits of routine episiotomy.Journal of Nurse Midwifery and womens health..2016; 31(3):121-127
- [46] Rashidi F .The Effect of Phenytoin Cream in Comparison with Betadine Solution on Episiotomy Pain of PrimiparousWomen”J Caring Sci. 2012 1(2): 61–65.
- [47] Manjula.P.Effectiveness of honey versus betadine on episiotomy wound healing.Journal on nursing.2012;2(1):32-34
- [48] Stommel M & Wills (2004) clinical research concept & principles for advanced practice nurses. Lippincott Williams & Wilkins, p.113-115
- [49] Datt S.Importance of research approach in research .Knowledge tank, 2018.<http://www.projectguru.in/publications/selecting-research-approach-studies/>
- [50] Basvanthappa B.T Nursing Research 2nd edition New Delhi, Jaypee Brothers Medical Publishers Ltd. 2007.p. 278-279
- [51] Sharma. Suresh.Nursing Research &Statistics, First edition, Elsevier Publications, NewDelhi.p.145-146
- [52] Polit D, Beck C.Nursing Research generating and assessing evidence for nursing practice 8th edition, New Delhi publication. p. 148-149
- [53] Cambridge Dictionary/English Dictionary, T. Cambridge Dictionary/English Dictionary, Translation and Thesaurus Dictionary.Cambridge.org, 2018 <https://dictionary.cambridge.org>
- [54] Oxford Dictionary/English Dictionary. Oxford org.2018.<https://en.oxforddictionaries.com>
- [55] Grigonadis T, Athanasiou S, Zisou A, Antsaklis. Episiotomy and perineal repair practices among obstetriciansin Greece. International journal of Nursing.2009;106(1):27-29.
- [56] Williams L. Introduction to summary, findings, discussion.6th edition. Wilkins a Walters Kluwer business. p.219-250.
- [57] D.C Dutta’s Textbook of Obstetrics eight edition. Jaypee Publications New Delhi. p. 647-651
- [58] Using evidence to reduce the rate of episiotomy in Dubai hospital-2/RCM.RCM.org.UK, 2018.<https://www.rcm.org.uk/learning-and-career/learning-and-research/ebm-articles/using-evidence-to-reduce-the-rate-of-1>
- [59] The dangers of episiotomy.Whale.to, 2018.http://.whale.to> dangers_of_episiotomy.
- [60] Schmidler, C.Episiotomy, vaginal tear, perineal massage, complications, stitches.Healthpages.org, 2018 <https://www.healthpages.org/surgical-care/episiotomy/>
- [61] Suresh Sharma Nursing Research and Statistics first edition. Elsevier publications New Delhi. p.93-96.
- [62] Alvargenga M, Francisco A, Oliveira S, Silva F, Shimpda G and Damiani L.Episiotomy healing assessment; Reedness, Oedema, Echymosis, Discharge, Approximation scale reliability.2018
- [63] Numeric pain rating scale.Physiopedia.2018.https://www.physio-pedia.com/Numeric_Pain_Rating_Scale