

## Evaluation of mothers' awareness and knowledge of induction of labor with oxytocin

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### ABSTRACT

**Introduction:** Childbirth experience is influenced by a variety of health, social and care factors. Induction of labor is a common procedure. The induction pathway, both decision-making and the process itself, is complicated and women need clear information at each point to make an informed decision. Some women believe that getting correct information will make them not feel afraid about that issue anymore (2, 6, 11). About a third of women, despite participating in prenatal education classes want to participate in decision-making, they frequently expressed a need for more honest information on what to expect prior to induction. Compared with the spontaneous onset of labor, induction may increase the woman's risk of a negative birth experience, they also had concerns about the baby's well-being (2, 12, 13).

Since in recent decades, the desire of mothers to perform cesarean delivery has been increasing and women's views on induction of labor, their information needs, their preferences regarding induction methods, and their experiences with induction have been not extensively evaluated yet the aim of this study was to investigate women's experience of induction of labor with oxytocin.

**Materials and Methods:** In this Descriptive-Comparative study a randomly sample of 400 primiparas and multiparas who delivered vaginally were interviewed. In this research the data was collected by questionnaire based on the research objectives. The Demographic questionnaire consisted of 18 questions on personal, social and obstetric particulars that had been tailored for the study after an extensive review of the literature. To assess women's attitudes, awareness and experiences of labor induction, questionnaire was used. It is 23-item, 4-point Likert scale that ranged from strongly agree<sup>4</sup> to strongly disagree<sup>1</sup>. Attitude and awareness was placed in three levels: less than 46 (weak), between 46-69 (moderate) and more than 69 (good). Overall level of satisfaction with the induction method (labor duration, labor pain intensity, complications associated with induction and receiving midwife support) was measured in five levels from very poor to very good. Content and construct validity methods were used to validate the questionnaires. The reliability of questionnaires was tested using test-retest yielding the following results. Reliability of coefficients for the women's attitudes, awareness and experiences of labor induction questionnaire was 0.83.

The data were analyzed by descriptive and analytical statistics, t-test and Pearson's correlation.

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## Results:

In this study, the mean age of primiparas was  $22.87 \pm 3.99$  yrs and the mean age of multiparas women was  $27.77 \pm 6.64$  yrs. 33.7% of primiparas and 23% of multiparas women had attended elementary school. 49% of primiparas and 46.5% of multiparas had a gestational age between 37-38 weeks. In 61.5% of primiparas and 67.5% of multiparas women had spontaneous rupture of the membranes. 48% of primipara and 44.5% of multiparous women had vaginal examination between 5-7 times in labor (Table 1).

The results indicated 63% of primiparas and 70% of multiparas women the overall level of knowledge and attitude with induction of labor was moderate. In association with the study of mothers' awareness and knowledge of induction of labor in primiparas women 69% vaginal examination, 62% baby's well-being, 59% intensity of pain compared to spontaneous onset of labor was reported. Also, in multiparas women 65% mobility, 61% vaginal examination and 57% non-participation of mothers in the decision-making process about the beginning and end of labor induction was reported.

The comparison of the mean duration of the active phase of labor and the second phase of labor with Student's t test revealed a significant statistical difference between the two groups ( $p < 0.0005$ ). In this study significant negative correlations were found between the duration of the first stage of labor and the level of satisfaction in primiparas ( $p < 0.003$ ,  $r = -0.15$ ) and multiparas women ( $p < 0.003$ ,  $r = -0.12$ ) and the duration of the second stage of labor with the level of satisfaction in primiparas ( $p < 0.002$ ,  $r = -0.17$ ) and multiparas women ( $p < 0.002$ ,  $r = -0.14$ ).

## Conclusion:

Compared to spontaneous labor, induction of labor can lead to experiencing more pain, which arising from uterine contractions, vaginal examinations, and even mother's fear and anxiety related to the induction method (12, 15). Also, women complained of a lack of pain relief generally and also pain associated with being monitored in an uncomfortable position and the lack of privacy can also affect the pain experience of mothers (2). Women were significantly more likely to be induced if they were primiparas. Compared to spontaneous labor, Women having an induction of labor report a longer labor duration (19).

Induction of labor rarely fails, and in such cases, failed induction is common indications for caesarean section. Failed induction and prolonged labor have previously been reported as significant factors of a negative childbirth experience. Fear, anxiety and disappointment are more during induction failure and long labor and this can lead to a negative birth experience. The progress of induced labor is one of the most important factors affecting overall maternal satisfaction (6, 14, 20).

Labor induction affects women's experiences of birth and induced labor does result in lower satisfaction rates as compared to that following spontaneous onset. In order to improve care and thus increase women's satisfaction and personal experience of induction of labor, the information and awareness of women who are induced should be improved. Also they need to be well supported.

**Key words:** Knowledge, Labor induction, Oxytocin

## REFERENCES

1. Bugg GJ, Siddiqui F., Thornton JG. Oxytocin versus no treatment or delayed treatment for slow progress in the first stage of spontaneous labour. *Cochrane Database Syst Rev*. 2013; (6): CD007123.
2. Henderson J., Redshaw M. Women's experience of induction of labor: a mixed methods study. *Acta Obstet Gynecol Scand*. 2013; 92(10): 1159-67.
3. Espada-Trespacios X. Oxytocin Administration in Low-Risk Women, a Retrospective Analysis of Birth and Neonatal Outcomes. *Int J Environ Res Public Health*. 2021; 18(8): 43-75.
4. Selin L., Berg M., Wennerholm UB., Dencker A. Dosage of oxytocin for augmentation of labor and women's childbirth experiences: a randomized controlled trial. *Acta Obstet Gynecol Scand*. 2021; 100: 971-978.
5. Shetty A., Burt R., Rice P. Women's perceptions, expectations and satisfaction with induced labour - A questionnaire-based study. *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 2005; 123(1):56-61.
6. Adler K., Rahkonen L, Kruit H. Maternal childbirth experience in induced and spontaneous labour measured in a visual analog scale and the factors influencing it; a two-year cohort study. *BMC Pregnancy and Childbirth*. 2020; 20:415.
7. Stock S. Outcomes of elective induction of labour compared with expectant management: population-based study. *BMJ*. 2012; 344: 1-13.
8. Reid M. The home as an appropriate setting for women undertaking cervical ripening before the induction of labour. *Midwifery*. 2011; 27(1):30-5.
9. OBrien E. Women's experiences of outpatient induction of labour with remote continuous monitoring. *Midwifery*. 2013; 29(4):325-31.
10. Datta S., farrant N., Opara E., Hanna L. Location of induction of labour must be considered further. *Lancet*. 2012; 15:976.
11. Falk M, Nelson M, Blomberg M. The impact of obstetric interventions and complications on women's satisfaction with childbirth a population-based cohort study including 16,000 women. *BMC Pregnancy Childbirth*. 2019; 19: 494.
12. Hildingsson I., Karlstrom A., Nystedt A. Women's experiences of induction of labor- findings from a Swedish regional study. *Aust New Zealand J Obstet Gynecol*. 2011; 51(2):151-7.
13. Strandberg M., Wallstrom T., Wiberg-Itzel E. Women's expectations and experiences of labor induction – a questionnaire-based analysis of a randomized controlled trial. *BMC Pregnancy and Childbirth*. 2021; 21(355): 2-10.
14. Konig-Bachmann M., Schwarz CH., Zenzmaier CH. Women's experiences and perceptions of induction of labour: Results from a German online-survey. *European Journal of Midwifery*. 2017; 1(2): 1-8.

15. Hermus M. Comparison of induction of labour and expectant management in post term pregnancy: a matched cohort study. *J Midwifery Women's Health*. 2009; 54(5):351-356.
16. Ulker K., Kivrak Y. The Effect of Information About Gynecological Examination on the Anxiety Level of Women Applying to Gynecology Clinics: A Prospective, Randomized, Controlled Study. *Iran Red Crescent Med J*. 2016; 18(6): 1-8.
17. Hannah W. Women's experiences with vaginal examinations during labor in the Netherlands. *J Psychosom Obstet Gynaecol*. 2018; 39(2):90-95.
18. Schwarz C., Gross MM, Heusser P., Berger B. Women's perceptions of induction of labour outcomes: Results of an online-survey in Germany. *Midwifery*. 2016; 35:3–10.
19. Gross MM. Onset of labour: Women's experiences and midwives' assessments in relation to first stage duration. *Archives of Gynecology and Obstetrics*. 2009; 280(6):899-905.
20. Gatward H. Women's experiences of being induced for post-date pregnancy. *Women Birth*. 2010; 23(1):3–9.