



CODEN [USA]: IAJ PBB

ISSN : 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**

SJIF Impact Factor: 7.187

<http://doi.org/10.5281/zenodo.4369432>Available online at: <http://www.iajps.com>

Research Article

**INTENSITY OF LABOR PAIN ON INTERACTION AMONG
MOTHERS AND INFANTS AND ITS IMPACT**¹Abdul Ali, ²Dr Bareera Jabeen, ³Ahmad Atif¹Baqai Medical University Hospital²Saad Medicare Toba Tek Singh³Baqai Medical University Hospital**Article Received:** October 2020**Accepted:** November 2020**Published:** December 2020**Abstract:**

Objective: The study and research is carried out to know about the impact of the labor pain's intensity on the development of interaction between mother and infant.

Methodology: The collection of the information carried out from October 2018 to March 2019. This research work was performed in the Gynecology Department of Services Hospital, Lahore a capital city of province Punjab, Pakistan. In the duration of this research work, total two hundred and twenty-five females having babies underwent interviews if they fulfilled the prescribed criteria of the research work.

Results: The mean scores of the interaction between mother and infant were significant statistically in accordance with the ages of mothers; P value 0.0050 ($P < 0.050$), level of education; P value 0.000 ($P < 0.0010$) and duration of labor; P value is 0.0170 ($P < 0.050$). The type of labor did not have effect on the interaction between mother and infant; P value 0.5390 ($P > 0.050$). Difference between interaction scores and the starting period for feeding from breast was significant statistically; P value 0.000 ($P < 0.0010$). The intensity of the labor pain did not influence the interaction between mother and infant; P value 0.4370 ($P > 0.050$). However, when there was an increase in intensity of the labor pain, there was a decrease in the scores of interactions.

Conclusion: There is suggestion that there should be utilization of the painless techniques of labor. According to the results of this research work, it seems to be vital that during antenatal checkups, there should be implementation of the programs about the interactions between mothers and infants, particularly among females who are older, present with low level of education and multi-gravid.

KEY WORDS: Criteria, interaction, infant, gravid, labor, breast, feeding, implementations, antenatal, intensity.

Corresponding author:

Abdul Ali,

Baqai Medical University Hospital

QR code



Please cite this article in press Abdul Ali et al., *Intensity Of Labor Pain On Interaction Among Mothers And Infants And Its Impact.*, Indo Am. J. P. Sci, 2020; 07(12).

INTRODUCTION:

There are very few research works on the impacts of intensity of labor pain on the relationship between mother and infant in our country, Pakistan. Quality of interaction among mothers and infants is most important predictors of the development and well-being of the neonates [1-3]. Pain of labor is important risk factor for the determination of the interaction between mothers and infants [3], because there is significant pain accompanied with the birth of child and it is the very severe experience of acute form of pain [4]. Research work conducted in the past have displayed that traumatic labors, like CS or utilization of forceps or vacuum, delay in the creation of the bond between mother and infants in just after postpartum period. It may be because of the long maternal preoccupation with the labor's experience which interferes with the emergence of the relationship [5,6]. Many research works on the infant-mother interaction have focused upon the impacts of pain for long and short terms [4,7].

The main purpose of this research work was to examine the whether the intensity of labor pain have influences on the development of the interactions among mother and infants among mothers of our regions. .

METHODOLOGY:

The inclusion of those females carried out who were present without any medical issue after labor and they all have term deliveries. The research work carried out in the Genecology Department of Services Hospital, Lahore. This research work covered duration of complete seven months from October 2018 to March 2019. In the duration of this research work, total two hundred and twenty five mothers having infants who fulfilled the criteria of the research underwent interviews. The average of the mothers was 27.150 ± 5.930 with a range from 16 to 42 years. We observed the majority of the mothers (45.30%) were between 16 to 25 years of age, 50.70% females were present with the education of primary school and 62.70% females were present as multi-gravid.

The independent variables of this current research work were characteristics of demography. The collection of the information carried out on a questionnaire which was well-organized by our authors. We used the MIIAS (Mother-Infant Interaction Assessment Scale) for the determination of the relationship between mothers and infant. VAS (Visual Analogue Scale) was in use for the evaluation of the intensity of the labor pain. Questionnaire included the information about demography as age of

mother, level of education, type of labor and number. The filling of the MIIAS carried out in the breast feeding period. The determination of the VAS scores carried out by mothers and we obtained signatures of mothers on those forms. Dependent variables were the scores obtained by MIIAS & VAS. Stainton developed the MIIAS in 1981 [8], Pek checked the reliability of this scale [9]. VAS is much widely used instrument for the measurement of the intensity of pain and perception of pain [10-12]. In this scale, researcher displays the mother a ruler of ten centimeter and asks her to mark the level which exactly shows the pain intensity in the labor period. There were 2 anchors on ruler as 0 for no pain at all and ten for worst type of pain

[13]. Labor pain's intensity was elaborated as no pain (0 centimeters), mild pain (0.10-4.0 cm), moderate pain (4.10 to 7.0 cm) and pain of severe nature (7.10 to 10.0 cm) [12,14].

We expressed the quantitative data in averages and SDs and we expressed the categorical data in in frequencies. SPSS V. 20 was in use for the statistical analysis of the collected information. P value of less than 0.050 was significant statistically. Ethical committee of the institute gave the permission to conduct this research work. We took the written consent from all the participants of this research work after explaining them the purpose of this research work.

RESULTS:

In this research work, when the age of the mothers was younger (from 16 to 25 years of age) and their level of qualification was high, there was an increase in the scores of interaction and multigravida females were present with less scores of interaction. This research work interrogated whether the intensity of labor pain and characteristics of mothers like age of mothers, level of education, duration of labor, type of labor on the development of the relationship among mothers and infants in mothers of our nation. The mean scores of interaction among mother and infant were significant statistically in accordance with age of mothers; P value 0.0050 (P <0.050), level of education; P value 0.000 (P <0.0010) and duration of labor; P value is 0.0170 (P <0.050). The type of labor had no impact on the relationship among mother and infant; P value 0.5390 (P >0.050). The difference between scores of interaction and initial period of starting the feeding from breast was also much significant; P value is 0.000 (P <0.0010)(Table-1). The intensity of labor pain did not have impact on the

mother-infant relationship; P-value 0.4370 (P > 0.050) (Table-2).

Table-I: The average scores of interactions according to mothers' characteristics.

| Characteristics | | No | Percent | MBIES Score | | P value |
|------------------------------|-----------------------------|-------|---------|-------------|-------|-----------------|
| | | | | Mean | SD | |
| Age | 16-25 | 102.0 | 45.30 | 8.040 | 2.400 | |
| | 26-35 | 99.0 | 44.00 | 7.880 | 2.020 | |
| | 36 and over | 24.0 | 10.70 | 6.080 | 3.060 | Significant |
| Education level | Non-literate | 45.0 | 20.00 | 5.910 | 2.310 | |
| | Literate and primary school | 114.0 | 50.70 | 7.870 | 2.390 | |
| | Secondary education | 48.0 | 21.30 | 8.810 | 1.630 | |
| | University | 18.0 | 8.00 | 8.940 | 1.390 | Significant |
| Labor number | Primi-gravid | 84.0 | 37.30 | 8.260 | 2.310 | |
| | Multi-gravid | 141.0 | 62.70 | 7.470 | 2.390 | Significant |
| Labor type | Vaginal | 108.0 | 48.00 | 7.660 | 2.410 | Not Significant |
| | Caesarean | 117.0 | 52.00 | 7.860 | 2.360 | |
| Time to start breast feeding | 0-2 hours | 115.0 | 51.10 | 7.480 | 2.870 | |
| | 3-4 hours | 43.0 | 19.10 | 6.270 | 0.700 | |
| | 5 hours and over | 67.0 | 29.80 | 9.200 | 1.020 | Significant |
| Total | | 225.0 | 100.0 | | | |

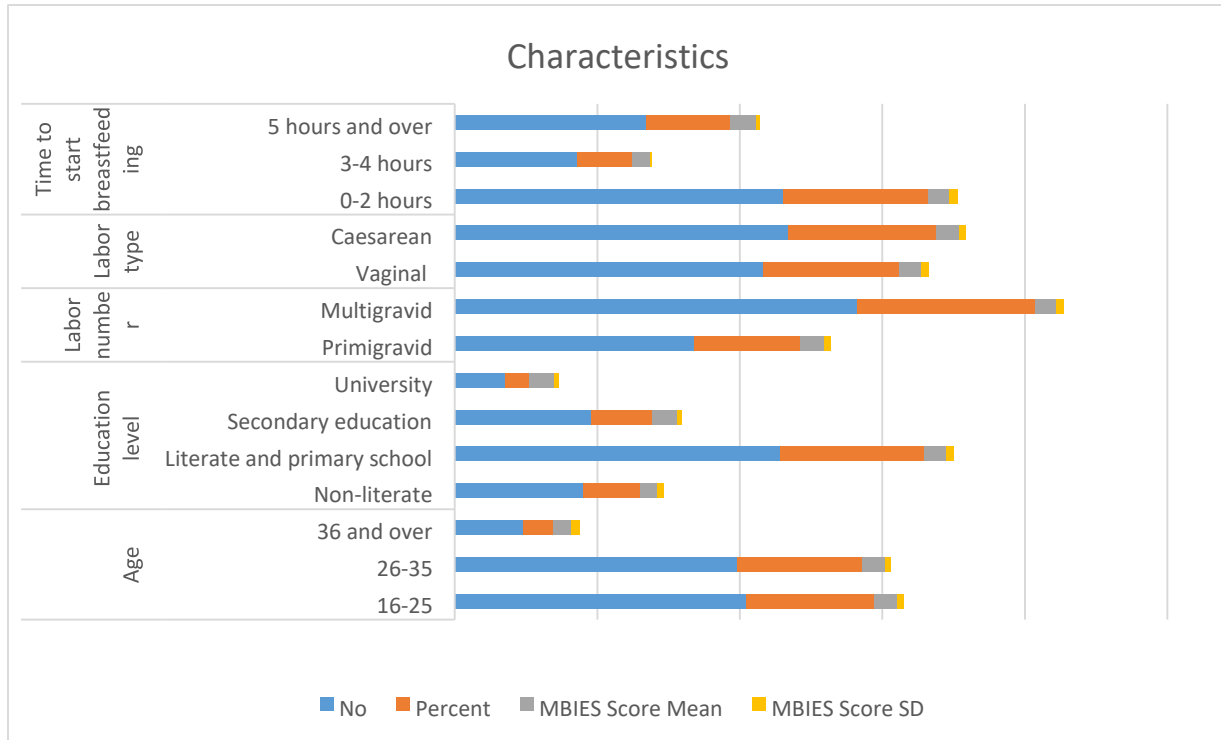
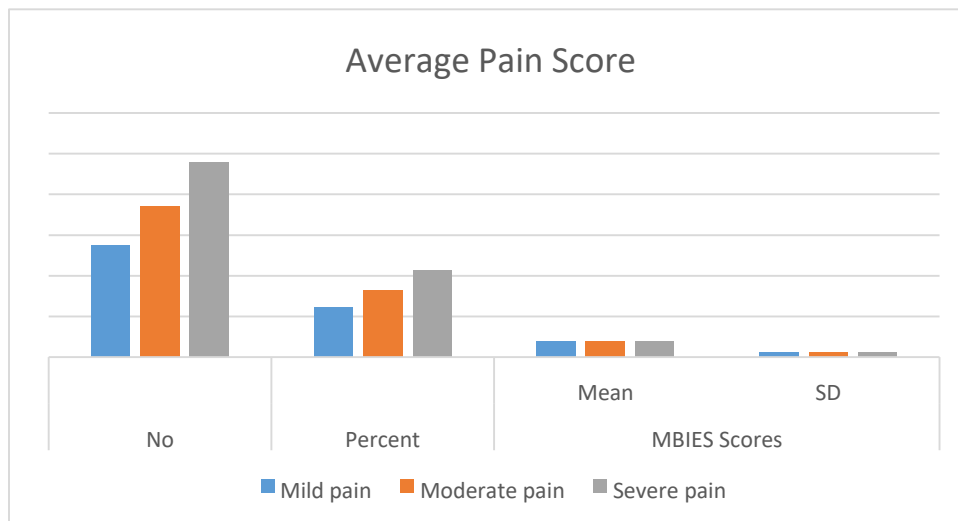


Table-II: The average pain scores of mothers according to VAS.

| VAS | No | Percent | MBIES Scores | | P value |
|---------------|-------|---------|--------------|-------|-----------------|
| | | | Mean | SD | |
| Mild pain | 55.0 | 24.40 | 7.960 | 2.320 | |
| Moderate pain | 74.0 | 32.90 | 7.930 | 2.230 | |
| Severe pain | 96.0 | 42.70 | 7.530 | 2.530 | Not Significant |
| Total | 225.0 | 100.00 | | | |



DISCUSSION:

We also noticed that when there was an increase in the level of education of mothers, there was increase in the scores of interaction and the difference between level of education and scores of interaction are significant. In this research work, we observed that in the mothers of young age, there were more interaction scores and there was significant difference in the interaction scores and age. In one research work conducted in past, there was positive correlation of pain with the age of mothers [4]. This outcome may be associated to the healthy physique of the young females who may not feel labor pain as threat and they may have more mental ability to handle the labor pain [4,16, and 17]. The results of this current research work are similar with mentioned studies.

Our research work determined that multigravida females were present with less scores of interaction and there was significant difference among various age groups. Previous research works on development of the mother-infant relationship have stated that education level of mother is an important predictor of level of maternal sensitivity [1,18]. The findings of this research work are consistent with the results of our study. In research works conducted in past, it was stated that when there was increase in the duration of labor, there was decrease in the tolerance of pain and then there was development of negative behaviors of mothers [15,19-21].

We also observed that when there was increase in the intensity of the labor pain, there was a decrease in the scores of interaction but the intensity of labor pain did not have significant impact on the mother-infant relationship. We also observed that type of labor did not have impact on the mother-infant relationship and there was not significant difference between interaction and type of labor. So, it confirmed that type of labor was not an effectual factor on this relationship. Similar findings were also the outcome of one previous research work [22].

CONCLUSION:

This research work also stated that when there was increase in the intensity of labor pain, there was decrease in the scores of interaction but intensity of labor pain did not affect the interaction between mothers and infant much significantly. The findings of this research work concluded that primi-gravida younger mothers with high level of education and feeding their babies through their breast after 5 hours of birth had high scores of interaction as compared to others which is significant. It is vital that in the duration of antenatal period, there should be implementation of

the programs about the interactions between mother and infants for elder, multigravida females with low level of education.

REFERENCES:

1. He H, Pölkki T, Pietila AM, Vehvilainen-Julkunen K. Chinese parent's use of nonpharmacological methods in children's postoperative pain relief. *Scandinavian J Caring Sciences* 2006;20:2-9.
2. Price D, McGrath PA, Rafii A, Buckingham B. The validation of Visual Analogue Scale as ratio scale measures for chronic and experimental pain. *Pain* 1983;17:45-56.
3. Coll AM, Ameen JR, Mead D. Postoperative pain assessment tools in day surgery: Literature review. *J Advanced Nursing* 2004;46:124-133.
4. Choi PT, Bhandari M, Scott J, Douketis J. Epidural analgesia for pain relief following hip or knee replacement. *The Cochrane Database of Systematic Reviews* 2003;CD003071.
5. Block BM, Liu SS, Rowlingson AJ. Efficacy of postoperative epidural analgesia: A metaanalysis. *JAMA* 2003;290:2455-2463.
6. Pek H. Family-infant interaction in the first three days of life at birth Caesarean. I. *National Perinatoloji Nursing Symposium (Sezeryan dogumda yasamin ilk ucgunun deaile-bebeketk ilesimi. I.Ulusal Perinatoloji Hemsireligi Sempozyumu)* 1996 Istanbul.
7. Stainton MC. *Parent-Infant Interaction: Putting theory into nursing practice.* The University of Calgary Alberta 1981.
8. Gathwala G, Narayanan I. Influence of cesarean section on mother-baby interaction. *Indian Pediatrics* 1991;28:45-50.
9. Rowe-Murray HJ, Fischer JR. Operative intervention in delivery is associated with compromised early mother-infant interaction. *British J Obstetrics Gynecology* 2001;108:1068-1075.
10. DiMatteo MR, Morton SC, Lepper HS. Cesarean childbirth and psychosocial outcomes: A metaanalysis. *Health Psychology* 1996;15:303-314.
11. Ferber SG, Feldman R. Delivery pain and the development of mother-infant interaction. *Infancy* 2005;8:43-62.
12. Murry AD, Hornbaker AV. Maternal directive and facilitative interaction styles: Associations with language and cognitive development of low risk and high risk toddlers. *Developmental Psychopathology* 1997;9:507-516.

13. Drossman DA, Leserman J, Li Z, Hu YJ, Toomey TC. Effects of coping on health outcome among women with gastrointestinal disorders. *Psychosomatic Medicine* 2000;62:309–317.
14. Bee HL, Barnard KE, Eyers SJ. Prediction of IQ and language skill from perinatal status, child performance, family characteristics, and mother–infant interaction. *Child Development* 1982;53:1134–1156.
15. Sheiner E, Shoham-Vardi I, Ohana E. Characteristics of parturients who choose to deliver without analgesia. *J Psychosomatic Obstetrics Gynecology* 1999;20:165-169.
16. Hapidou EG, DeCatanzaro D. Responsiveness to laboratory pain in women as a function of age and childbirth pain experience. *Pain* 1992;48:177-181.
17. Taskin L. Dogumve Kadin SagligiHemsireligi VII. Baski. *SistemOfset*, Ankara, 2007:240-243.
18. Calisir H. To examine factors affecting the motherhood role performance of women with firsttime mother (Ilk kezanne olanka dinla in annelik rolubasa riml arinietkileyen etmenlerinin celenmesi). PhD thesis, Institute of Health Sciences of Ege University, Izmir 2003.
19. NICHD Early Child Care Research Network. Child care and mother–child interaction in the first 3 years of life. *Developmental Psychology* 1999;35:1399–1413.
20. Ruth KL, Alpen L, Repacoli B. Disorganized infant interaction classification and maternal psychosocial problems as predictors of hostile-aggressive behavior in the preschool classroom. *Child Development* 1993;64:572–585.
21. Bedard GB, Reid GJ, McGrath PJ, Chambers CT. Coping and self-medication in a community sample of junior high school students. *Pain Research & Management: J Canadian Pain Society* 1997;2:151–156.
22. Melzack R. Labour pain as a model of acute pain. *Pain* 1993;53:117-120.