Knowledge and Attitude about Painless Labor among Sample of Iraqi Pregnant Women in Baghdad/Al-Karkh Sector

Shahd Mazin Kamil
Family medicine Al Imamain Al Kadhimain medical
Shahad839@gmail.com

Mary Mohammed Sabri
Family medicine consultant Al.salam primary health care center
marysabri2017@yahoo.com

Ali Raheem Jebur
Head of department of emergency medicine department
alirjk83@gmail.com

ABSTRACT

Background: Painless labor entails the utilization of many techniques, both non-pharmacological and pharmaceutical, to assist women in effectively managing the pain experienced during childbirth.

Patients and methods: A cross sectional study was carried out among 400 participants from the 1st of February till 30th of July 2024, to assess their knowledge, attitude regarding painless labor, via convenient sampling by direct interview questionnaire (20 questions on knowledge an 6 on attitude) after obtaining their agreement and explaining the aim of the study that took 15 minutes to complete, from outpatients of obstetrics & gynaecology clinics of seven governmental hospitals of Al-Kharkh sector, achieved scores of pregnant women were analysed.

Results: The study included 400 participants, most of them were married at age less than 20 years with residence in an urban area, 65% had poor knowledge, 33% had fair knowledge while only 2% mothers had good knowledge about painless labor, highest good knowledge was with women aged 23-36 years, age at marriage more than 30 years, urban residency, enough family income, High educational level and multipara making statistical significance among others. As regards overall attitude, 55% of participants had negative attitude while 45% had positive attitude towards painless labor, urban residency, enough family income and high educational level (college and more) and governmental employee shoes the highest positive attitude towards painless labor reaching statistically significance.

Conclusion: The result of the study regarding knowledge was unsatisfactory toward painless labor, majority falls in poor category, with variation between age, parity, residency and educational level and more than half of them had negative attitude.

Keywords: labor pain, painless labor, Antenatal care, Nitrous oxide.

INTRODUCTION:

Labor consists of a series of rhythmic, involuntary or medically induced contractions of the uterus that result in effacement (thinning and shortening) and dilation of the uterine cervix [1].

Labor pain ranks consistently among the most severe types of pain that a woman will experience during her lifetime. It occurs due to the contraction of the uterus which is a muscular organ [1]. The opening of the cervix during labor depends on the contractions of the uterus that induces severe pain. Painless labor refers to a method of managing pain during childbirth to make the process more comfortable for the mother. There is no accurate data about use of labor analgesia in Iraq or middle eastern countries, however in the United States, it is used in nearly three-fourths of labors [2]. There are many methods of pain relief in labor including pharmacological and non-pharmacological. The essentials of obstetric pain relief methods must be safe, simple, effective, not interfering with labor progression, and ideally should preserve fetal homeostasis [3]. Pharmacological methods of pain relief in labor includes epidural anesthesia, nitrous oxide Gas or the use of opioids such as fentanyl and morphine [4]. On the other hand, non-pharmacological methods of pain relief in labor includes water immersion and water birth, transcutaneous electrical nerve stimulation, massage, breathing techniques, music therapy and maternal positioning [5].

Aim of the study:

The current study aimed to assess knowledge and attitude of pregnant women about painless labor in Baghdad/Al-Karkh health sector.

Subjects and methods

Study design:

A descriptive cross-sectional study.

Study duration:

The current study was carried out during period of six months from 1st of February to 30th of July 2024. 3 days /week, 3-4 hour in each visit.

Study setting:

The study included a convenient sample from outpatients of obstetrics & gynaecology clinics of seven governmental hospitals in Al-Kharkh sector.

Sample size:

The study included a convenient sample of 400 pregnant Iraqi women.

Pilot study:

A pilot study was done on 20 pregnant women in order to assess the practicality, clarity and time consumed to fill the questionnaire (about 10 minutes). These cases were excluded from the main study (400 participants). No modifications were needed after that.

Data collection tools:

Data was collected through direct interview with all pregnant women to complete the data included in the questionnaire.

Inclusion criteria:

This study will include Iraqi pregnant women. Age ranged (15-44) years. With normal current pregnancy course who agreed to participate in the study.

Exclusion criteria:

Any pregnant women with bad obstetrical history, also mothers with history of two or more cesarean sections were excluded.

Limitations:

The study was limited by the short duration of the study and the refusal of some mothers to participate

Statistical analysis:

The collected data was revised, coded, tabulated and introduced to a PC using Statistical package for Social Science (Version 25.0.). The descriptive statistics were presented using tables and graphs measuring frequencies, percentages. Chi-square test was used to find out significancy

of association between related categorical variables. P-value of less than 0.05 was considered as determination point for significancy.

Concerning knowledge section, questions were answered by yes, no or I don't know. Answers were scored as the following: correct answer '1', incorrect answer and I don't know '0'. The mothers' knowledge was considered:

1. Good if the score was ≥ 75% of the total score.
2. Fair when the score was 50% to less than 75% of the total score.
3. Poor when the score was < 50% of the total score.

As regards attitude section, questions were answered by yes, no or I don't know, moreover, answers were scored as the following: correct answer '1', incorrect answer and I don't know '0'. The mothers' attitude was considered:

1. Positive if ≥ 50% of the total score.

Negative if the score was < 50% of the total score

Results

Socio-demographic data Table (1) shows the distribution of studied pregnant women attending outpatient of hospitals as a groups according to socio-demographic characters

Obstetric history:

The obstetrical history of included participant revealed that most participant were multigravida 320 (80%) with 258 (64.5%) were >2 gravida of which 344 (86%) with previous normal delivery in most common place of delivery was governate hospital (65.3%). Most common place of ANC was hospital 46% with regular ANC visit (54%) Knowledge about painless labor. Assessment of knowledge about painless labor in included participants that revealed:

poor knowledge: represented by 65% (260 mother). *Fair knowledge:* was represented by 132 (33%).

Good knowledge: was only 2% (8 mothers).

Association between demographic data and knowledge

The result of this study demonstrates there was significant association between age, age at marriage, residency, family income, educational level and knowledge about painless labor (p value <0-05). Older mothers, older age of marriage, urban residence and higher level of education had significantly higher knowledge.

Higher gravidity number, previous history of abortion and higher number of ANC visits had significantly higher knowledge.

Attitude about painless labor

the Assessment of attitude about painless labor in included participants revealed that 55% (220) of participants had negative attitude while 45% (180) had positive attitude. With most of participant 372(93%) have fear from labor pain and 254(63.5%) are not ready to pay for painless labor

Association between socio-demographic data, and attitude:

Urban residence, enough family income, higher educational level and working at private sector had significantly better attitude.

Assessment of association between obstetric history and attitude revealed nullipara, delivery at private hospital and regular ANC visits during current pregnancy had significantly better attitude.

Discussion:

Our study revealed that about 2/3 of participant (63%) were living in urban areas. This result agreed with, **Hasan MS et al.** in Iraq **(2016)** [6] **and Workie MM et al.** in Ethiopia **(2021)** [7] who reported more than 2/3 of participant were living in urban area (77.6% and 79.3% respectively). Contradicting to our results, other studies **Khan IA et al. (2022)** [8] and **Dogra S et al. (2021)** [9] both in India disagree our result (77.3% living in rural areas,68% living in rural areas) respectively.In comparison to

our study, which show about 2/3 (62.5%) reported that their income was not enough, **Salama AE et al.** in Egypt **(2023)** [10] disagree with our study in about 2/3 (64%) of mothers reported enough income while 1/3 (36%) reported not enough income.

Most prevalent educational level was primary in about one-third of mothers (34.5%). This was agreed by **Hasan MS et al.** in Iraq **(2016)** [6] as 37.6% of mothers had primary education. Differently, **Khan IA et al. in India (2022)** [8] reported that secondary education was the most prevalent,59.3%, while, **Babiker YOH et al. in Saudi Arabia** (**2023**) [11] reported that most prevalent educational level was university education or above (75.9%). Different economic status and geographical distribution could explain these contradicting results regarding income and educational level.

In relation to occupation, the majority of participants (78.5%) were not working. Several studies reported similar results as **Hasan MS et al. in Iraq (2016)** [6], **Khan IA et al. in India (2022)** [8], **Hosseinzadeh F et al. in Iran (2023)** [12] those reported that the vast majority were housewives, 79%, 95.5%, 84.5% respectively.

Regarding obstetric history in our study, most participant were multigravida (80%) with 64.5% were >2 gravida. This was agreed by **Hasan MS et al.** in Iraq **(2016)** [6], **Dogra S et al**. in India (**2021**) [9] and **Hosseinzadeh F et al. in Iran (2023)** [12] who reported that multigravida mothers were 89.02%, 56% and 61.8% respectively.

In our results, about half (54%) of mothers had regular ANC during the current pregnancy. Disagreeing results were reported by **Salama AE et al. in Egypt (2023)** [10] who reported that 90% of mothers had regular ANC during the current pregnancy. Different educational levels and economic status can be the cause of these contradicting results.

In our study, aged at marriage more than 30 years, urban residency, enough family income and High educational level making statistical significance P-value (0.048, 0.036,0.044 ,0.021) respectively, this might be explained by area of sample collection as more people with high educational level lives in urban area and women aged more >30 had better level of understanding things than their counterparts.

In current study regarding the associations between obstetric history and knowledge, multipara and women with 2 gravida were more knowledgeable than others, making statistical difference **P-Value (0.033,0.048)** respectively, this show similarity with study done by **Bohsas H et al. in Syria (2022)** [13] making statistical difference **P-Value (0.001)** regarding parity.

In current study, more than half of participants will not ask for painless labor, which is disagreed with **Hosseinzadeh F et al. in Iran (2023)** [12]**, and Bohsas H et al. in Syria (2022)** [13] as most of women want painless labor (83%,66.6%) respectively, this contractility may be related to different ideas and misconception about the side effect of painless labor among participant and different sources of information between different countries.

In the currents study; the main factors affecting attitude were that most of participant (93%) have fear from labor pain while (60.5%) are not ready to pay for painless labor, this was partially agreed by **Khan IA et al**. **in India (2022)** [8] as 61.3% of mothers were afraid of labor pain, however, only 17.6% of mothers were not ready to pay for painless labor. in our study regarding associations between socio-demographic data and attitude about painless labor; urban residency, enough family income and high educational level (college and more) and governmental employee shows the highest positive attitude towards painless labor reaching statistically

significance **p-value (0.007, 0.001 ,0.001 ,0.001)** respectively, which shows partial agreement with **Bohsas H et al. in Syria (2022) [13] and Workie MM et al. in Ethiopia (2021) [7]**

Conclusion: Women with more than four ANC visits and history of two abortions and more, higher gravidity number, had significantly higher knowledge.

Acknowledgements

References

[1] Al-Azzawi F, Webster S. Childbirth & Obstetrics Techniques. JP Medical Ltd; 2017 Dec 31.

[2] Souza MA, Guida JP, Cecatti JG, Souza JP, Gulmezoglu AM, Betran AP, Torloni MR, Vogel JP, Costa ML. Analgesia during labor and vaginal birth among women with severe maternal morbidity: secondary analysis from the WHO multicountry survey on maternal and newborn health. BioMed research international. 2019;2019(1):7596165.

[3] Hu Y, Lu H, Huang J, Zang Y. Efficacy and safety of non-pharmacological interventions for labour pain management: A systematic review and Bayesian network meta-analysis. Journal of Clinical Nursing. 2021 Dec;30(23-24):3398-414.

[4] Zheng H, Zheng BX, Lin XM. The trend of labor analgesia in the world and China: A bibliometric analysis of publications in recent 30 years. Journal of Pain Research. 2020 Mar 10:517-26.

[5] Chang CY, Gau ML, Huang CJ, Cheng HM. Effects of non-pharmacological coping strategies for reducing labor pain: A systematic review and network meta-analysis. Plos one. 2022 Jan 21;17(1):e0261493.

[6] Hasan MS, Alsaadi ZA, Abbas MA, Algoraby JM. Awareness and attitude of pregnant women towards labor analgesia in Babil Province. Med J Babylon. 2016;13(1):95-104.

[7] Workie MM, Chekol WB, Fentie DY, Ahmed SA, Bizuneh YB. Assessment of awareness, attitude and desire for labor analgesia and associated factors among pregnant women in Ethiopia: a cross-sectional study. Pain and Therapy. 2021; 10:363-76.

[8] Khan IA, Malik N, Mishra R, Tiwari HC, Shahi V. Awareness, attitude and willingness to receive labour analgesia among pregnant women attending maternity hospitals in Eastern UP. Clinical Epidemiology and Global Health. 2022; 18:101157.

[9] Dogra S, Sharma P, Qazi AR, Kalsotra S, Mehta A. Awareness and Attitude Towards Labour Analgesia in Rural Northern India: A Cross-Sectional Questionnaire Based Study. JK Science: Journal of Medical Education & Research. 2021 Oct 10;23(4):205-9.

[10] Salama AE, El-Nagar AE, Belal GA, Gaheen MA. Knowledge and Attitudes of Pregnant Women Regarding Painless Labor. Tanta Scientific Nursing Journal. 2023;31(4):48-65.

[11] Babiker YOH, Najmi MHS, Muslihi IMA, et al. Knowledge and Attitudes towards Epidural Analgesia among Women of Childbearing Age in Jazan, Saudi Arabia: A Community-Based Cross-Sectional Study to Identify Predictors through Multivariate Modeling. *Healthcare (Basel)*. 2023;11(4):626. Published 2023 Feb 20.

[12] Hosseinzadeh F, Madani ZH, Rad RS, Soltanipour S, Sorouri ZR, Biazar G, Bagheri Z. Maternal Attitude and Knowledge Regarding Painless Labor: A Report from a Referral Hospital in Northern Iran. Anesthesiology and Pain Medicine. 2023 Oct;13(5).

[13] Bohsas H, Alibrahim H, Swed S, Abouainain Y, Nasif MN, Jawish N, Almarja MB, Aldarwish S, Ghareeb C, Sawaf B, Hafez W. Knowledge, attitudes and intentions of the Syrian pregnant women toward labour analgesia, and its associated factors: a cross sectional study in Syria (2022). BMC Health Services Research. 2023 Nov 9;23(1):1229.