ABSTRACT

Pregnant women commonly worry about the pain they may experience during labour and child birth and how they will react and deal with such pain. Anxiety and pain are closely interrelated with each other. The interaction between anxiety and pain may become a spiralling process. Pain and anxiety together can eventually become severe, in turn, a cause for panic and uneventful maternal and fetal complications.

Preparation of mother during labour in initial period will enhance the possibility of healthy normal delivery with less exhaustion, stress and pain to the mother.

Ideally preparation for labour and delivery should come in antenatal period and that too in third trimester where women specially primigravida are waiting for their due dates more eagerly and more eager to know about labour and its preparations.

Nurses as a health professional remain in continous and direct contact with the primi gravidae during their pregnancy and in Antenatal OPDS , they can determine women's learning needs and can prepare them for childbirth process.

Researcher attended many primigravida in labour, who are not prepared mentally for labour and not able to follow the instructions that predispose them to more fear, anxiety and pain. Researcher observed these phenomena, interacted with mothers and with various review the researcher found this as a problem, need to be solved and motivated the researcher to study this problem.

So the present study was undertaken by the investigator with the main purpose to assess the effectiveness of a video assisted childbirth education programme on knowledge, intra-partum behaviour, maternal and fetal outcome among primigravida mothers in selected hospitals of Pune city. The study was undertaken with the following objectives:

1. To assess the knowledge of primigravida mothers in experimental and control group regarding child birth before administration of the video assisted child birth education programme.
2. To assess the knowledge of primigravida mothers in experimental and control group regarding child birth after administration of the video assisted child birth education programme in experimental group only.
3. To compare the level of knowledge of primigravida mother regarding child birth before and after administration of the video assisted child birth education programme
4. To observe and compare the intra-partum behaviour of the primigravida mother in experimental and control group.
5. To observe and compare the maternal and foetal outcome in experimental and control group.
6. To associate the knowledge with selected demographic variables.

A quantitative research approach was adopted for the study with quasi- experimental pre-test post-test control group design. The independent variable of the study was video assisted child birth education programme and dependent variables were mother’s knowledge, intra-partum behaviours in all the stages of labour, maternal outcome in terms of duration of labour, use of pain relieving drugs, nature of delivery, maternal complications and fetal outcome in terms of APGAR SCORE, birth injury.

The study was conducted in ANC OPD & labour room of Municipal Hospitals of Pune City. Non-probability purposive sampling technique was used to obtain an adequate size (350) of sample subjects and they were assigned to the groups (control & experimental). Every odd number was allotted to control group and every even number was allotted to experimental group. The sample comprised of 175 primigravida mothers in each experimental and control group.

To obtain necessary data for the study, the tools developed and used for data collection were a structured knowledge questionnaire, intra-partum behaviour observation check list & structured record analysis proforma. Structure questionnaire had two Sections (section I consisted of 8 items concerned with background data, section 2 comprised of 25 knowledge questions). Intra-Partum Behaviour Observation Checklist (IPBOC) was divided into two parts (part A comprised of 10 items related to the expectant intra- partum behaviour at the time of reporting to the labour room by the primigravida mothers and part B comprised of total 35 items regarding expectant intra-partum behaviours in all four stages of labour). Structured record analysis performa consists of two parts: Part A comprised of 8 items regarding maternal outcome and Part B comprised of 5 items regarding fetal outcome. Questioning (paper & pencil), observation (direct, non-concealed) and record analysis were the technique of data collection.

Knowledge Pre-test was conducted on 1st day of contact with the samples from both the groups followed by administration of Video Assisted Child Birth Education Programme to the experimental group only. Knowledge post test was conducted on 7th day. Intra partum behaviours were observed when the samples

underwent labour process and record analysis was done for maternal and fetal outcome after the delivery. The procedure for administration of Video Assisted Child Birth Education Programme was as follows:

- The session was conducted in a room of the OPD complex of Sonawane Maternity Home and Kamla Nehru Hospital.
- The room was having seating arrangements with benches, adequate ventilation.
- A good rapport was established with the participants with detail explanation of the purpose and schedule of this program.
- Video assisted child birth education programme was conducted in Marathi language.
- Animated videos were shown on the process of labour, episiotomy and breast feeding
- Video was shown on relaxation exercises, comfortable positions to be adopted during labour, appropriate technique for bearing down effort.
- Expected intra-partum behaviours during all the four stages of labour, maternal and fetal outcome was also shown.
- Participants were encouraged to express their concerns about labour and delivery.
- Participants were also encouraged to discuss any problems encountered.

The collected data were organized, analyzed and interpreted in terms of objectives and hypothesis of the study. Both descriptive and inferential statistics were used to analyze the data. The statistical tests employed were mean, median, standard deviation, ‘t’ test , ‘z’ test, test of proportion and Fisher’s exact test.

The major findings of the study revealed that initially (in pretest) the experimental and control group didn't differ in terms of their knowledge level ($t_{(348)}=0.4, p>0.05$). The mean posttest knowledge score of the experimental group (15.6) was significantly higher than their mean pretest knowledge score (8.3)($t_{(174)}=34.2, p<0.05$).The Video Assisted Child Birth Education Program significantly improved the knowledge of the primigravida mothers regarding labor process and child birth preparedness in all the areas except for breast feeding in experimental group as evident by the 't' value for Pregnancy and birth($t_{(174)}=2.7, p<0.05$), Events during child birth process($t_{(174)}=16.2, p<0.05$), Time and place for delivery ($t_{(174)}=10.4, p<0.05$), Signs of labor ($t_{(174)}=4.5, p<0.05$), Investigations ($t_{(174)}=22.4, p<0.05$), Responsibilities during labor ($t_{(174)}=10.6, p<0.05$), Comfort measures during labor ($t_{(174)}=12.6, p<0.05$), Episiotomy ($t_{(174)}=17.8, p<0.05$), Child birth preparedness ($t_{(174)}=10.8, p<0.05$), Mother and baby craft items($t_{(174)}=19.5, p<0.05$),and Diet after delivery ($t_{(174)}=23.5, p<0.05$).

The average change (7.3) in knowledge score in experimental group was significantly higher than the average change (0.4) in control group as evidenced by 'z' value of 111.6 for 348 degrees of freedom at 0.05 level of significance.

The mean intra-partum behaviour score (38.2) of experimental group was significantly higher than the mean intra-partum behaviour score (26.4) of control group. ($z_{(348)}=63, p<0.05$)at the time of reporting to the labour room. The compliance to the intra-partum behaviour at the time of reporting to the labour room in experimental group were significantly better than those of control group for aspects

like 'Reports to labour room on recognition of signs of true labour', 'Reports to labour room with cut nails and no nail polish', 'Reports to labour room with no jewelleries', 'Reports to labour room without having full meals', 'Reports to labour room after having a good Body bath and some hot drink', 'Brings extra set of dress for self and baby' and 'Possesses toiletries and antiseptic for the period of ward stay' since the calculated p-values were <0.05 for all the above said items.

The mean intra-partum behavior score in all the four stages of labour of experimental group (98) was significantly higher than the mean intra-partum behaviour score (79.8) of control group. ($z_{(348)}$=12.7,p<0.05). The experimental group primigravida mothers had shown significantly better compliance to the intra-partum behaviour in first, second, third and fourth stage of labour.

The proportion of primigravida mothers taking pain relieving drug in experimental group was significantly less as compared to that of control group ['z'$_{(348)}$=4.491, p<0.05]. The proportion of normal vaginal delivery in experimental group was significantly higher than that of the control group ['z'$_{(348)}$=4.58, p<0.05]. Total duration of labour in control group was significantly higher ['z'$_{(348)}$=16.9, p<0.05] than that of the experimental group primigravida mothers. The proportion of primigravida mothers in experimental group had significantly less maternal complications in terms of perineal injury as compared to that of control group. ['z'$_{(348)}$=2.95, p<0.05]

The proportion of newborns cried immediately after birth in experimental is significantly more as compared to that of control group. ['z'(df348)=6.6, p<0.05. APGAR score of the newborns in experimental group was significantly higher ['z'$_{(348)}$=3.92, p<0.05] than that of the control group newborns.

Age, education, occupation, monthly family income and previous information regarding birth preparedness information were found to have significant association with knowledge of primigravida mothers.

Therefore the findings of the study concluded that the structured Video Assisted Childbirth Education Programme prepare the primigravida mother for the process of labour and childbirth. It also conditioned them to breathe and relax during contraction. Primigravida mother in the experimental group who were exposed to Video Assisted Child Birth Education Programme exhibited better compliance to the intra-partum behaviour at the time of reporting to the labour room & in all the stages of labour. Practice of breathing techniques, relaxing positions and knowledge regarding the labour process helps the mothers to feel relaxed during the whole process of labour, thus shortens the total duration of labour. The need for instrumental delivery and the occurrence of perineal injury was much more reduced among the primigravida mothers who were exposed to video assisted CBEP. Video assisted CBEP also had a favourable impact on the newborn in terms of conditions at birth and APGAR score.

Hence, structured video assisted childbirth education programme prepare the primigravida mother well for childbirth. It also can help them to feel relaxed during the whole process of labour, thus having a favourable impact on the mothers and the newborn. The information provided also reduces women's fear of unknown and they are able to participate positively in the process of labour, therefore improves the labour outcome.

On the basis of the findings, the recommendations were offered for future nursing practice and research.