



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact Factor: 6.078

(Volume 7, Issue 5 - V7I5-1163)

Available online at: <https://www.ijariit.com>

Effectiveness of Doula care on anxiety and labor outcome among parturients

Joylet Paulian
joysabu1973@gmail.com
Apollo College of Nursing,
Chennai, Tamil Nadu

Dr. Arzta Sophia R.
arzasophia@gmail.com
Christian College of Nursing,
Neiyyur, Tamil Nadu

Dr. Santhi Appavu
a_santhi67@yahoo.in
Christian College of Nursing,
Neiyyur, Tamil Nadu

ABSTRACT

Pregnancy is a natural event, speculated to be of celebration and joy. But anxiety and fear about childbirth often inhibits the most women from enjoying this childbirth experience. Supportive measures involve continuous support during labour by doula and doula care are effective in these situations to reduce anxiety. This study was conducted to assess the effectiveness of doula care on anxiety and labour outcome among parturients in Kanyakumari, India. Methods: This was a quasi-experimental study, conducted among 30 primi-parturients who were selected using consecutive sampling technique, in 2021 in Kanyakumari, India. The tools used for data collection was interview schedule composed of demographic and obstetrical variables, anxiety scale and labour outcome checklist. Collected data is entered in Excel and analyzed in SPSS 20 using appropriate descriptive (f,%) and inferential statistics (Independent 't' test). Results: Regarding anxiety pretest anxiety scores did not differ significantly between the experimental and control group ($p=1.000$). After doula care, in the post-test there was significantly low anxiety level in experimental group as compared to control group ($P < 0.001$). Conclusion : Doula care is effective in reduction of anxiety and promote labour outcome during childbirth.

Keywords— Doula , Doula care , Parturients, Anxiety, Labour outcome.

1. INTRODUCTION

Childbirth process is an exciting and anxiety - provoking for the woman and her family. The increased anxiety level in mother enhances the pain perception, increases the labour duration and secretion of catecholamine which reduces the blood flow in the uterus. This reduces the effectiveness of uterine contractions and increases the labour duration¹. Mother's anxiety in this period is mostly due to the lack of knowledge and fear of the unknown risks and childbirth². Care of mother during labour with no complications is the task of a professional midwife³. "One of the most effective tools to improve labour and delivery outcome is the continuous presence of support personal such as doula⁴. Doula is a woman who helps other woman in childbirth also known as a birth companion, birth coach or birth supporter. Doula is a professional trained in child birth who provides emotional, physical and educational support to a mother who is expecting, experiencing labour⁵. In 2015 World Health Organization's goal for care in child birth process was to achieve safer mother and child by using minimal procedures with maximum safety to mother and child. Thus, WHO recommended all hospitals should implement programmes that offer continuous support to women during labour⁶. Continuous support with doula during childbirth showed a very high degree of birth outcomes. Cochrane Database Review stated that with the support of doula, women were less likely to have pain relief medications, less cesarean birth and reported positive child birth experiences⁷. Maternal mortality is one of the health indicators showing the status of safe pregnancy and childbirth. In 2015, the global maternal mortality ratio (MMR) was 303/100,000 live births as compared to 174/100,000 live births in India. From this 99% of maternal deaths occur in developing countries from preventable causes⁸. In 2018, World Health Organization (WHO) stated that between 2016 and 2030, as part of the sustainable Development Goals, the target is to reduce the global maternal mortality ratio less than 70 per 100,000 live births⁹. Mothering the mother by offering continuous interrupted physical and emotional support throughout the labour and immediate postpartum period is the primary goal of parturients to have a safe, pleasant and an empowered birth experience. Therefore, this study was conducted to assess the effectiveness of doula care on anxiety and labour outcome among parturients in Kanyakumari, India.

2. METHODS AND MATERIALS

This was a quasi-experimental study, conducted among 30 primi-parturients who were selected using consecutive sampling technique, in 2021 in Kanyakumari, India. Data were collected from the parturients after obtaining written consent, with hospital routine care for control group and with doula care for experimental group by using pretested predetermined tools such as demographic and

obstetrical variables proforma of parturients, anxiety scale and labour outcome checklist. Anxiety was assessed at 4 cm cervical dilatation as pretest and 6cm, 10 cm cervical dilatations as posttest 1,2. Collected data is entered in Excel and analyzed in SPSS 20 using appropriate (*f* & %) and inferential statistics (Independent ‘*t*’ test).

3. RESULTS

Table 1: Frequency and Percentage Distribution of Demographic and Obstetrical variables of parturients (N= 30)

Variables	Experimental (n=15)		Control (n=15)	
	<i>f</i>	%	<i>f</i>	%
Age (years)				
20-24	3	20	9	60
25-29	11	73.3	5	33.3
30-34	1	6.7	1	6.7
Education				
Schooling	5	33.3	5	33.3
Graduate	6	40	9	60
Post Graduate	4	26.7	1	6.7
Occupation				
Employed	5	33.3	3	20
Housewife	10	66.7	12	80
Religion				
Christian	9	60	11	73.3
Hindu	6	40	4	26.7
Family Type				
Nuclear	15	100	14	93.3
Joint	0	0	1	6.7
Residence				
Urban	5	33.3	7	46.7
Rural	10	66.7	8	53.3
Gestational age (weeks)				
37-38	9	60	3	20
39-40	6	40	12	80
Attended Prenatal classes				
Yes	0	0	2	13.3
No	15	100	13	86.7
Colour of liquor				
Clear	15	100	15	100
Family Monthly Income (Rupees)				
15,000-20,000	1	6.7	2	13.3
21,000 -25,000	8	53.3	4	26.7
26,000 -50,000	6	40	9	60
Estimated fetal weight (kg by USS)				
2.30 -3.00	15	100	15	100

Table 1 reveals that majority of primi parturients from experimental group were 25-29 years of age (73.3%), 20-24 years of age (60%) from control group. In experimental group 40% were graduates, 60 % were graduates in control group. 66 % were house wives in experimental group, 80% were housewives in control group, Christian 60% in experimental, 73.3% in control group, 100 % from nuclear families in experimental group, 93.3% from nuclear families in control group. Resided in rural (66.7%) for experimental group, 53.3% in control group. Regarding gestational weeks 60% were between 37-38 in experimental group 80% between 39-40 in control group. Among them 100% from experimental and 80% from control group not attended parental classes. 100% from both groups had clear amniotic fluid, with monthly family income of Rs.21,000- 25,000 (53.3%) in experimental, Rs. 26,000- 50,000 (60%) in control group. Regarding the estimated fetal weight 100% of primi parturients between 2.30 -3.00 kg in both groups.

Table 2: Comparison of anxiety scores at different points of time between experimental and control group(n= 30)

Assessment Time	Experimental group		Control group		‘ <i>t</i> ’ Value	‘ <i>p</i> ’ Value
	Mean	SD	Mean	SD		
Pre test	74.0	3.0	74.5	2.7	0.000	=1.000
Post-test-1	47.3	4.2	72.5	3.2	7.417	< 0.001
Post-test-2	33.7	4.5	71.4	2.2	14.466	< 0.0001

Table 2 demonstrates that at pre test anxiety did not differ significantly between the two groups. Whereas after performance of doula care, the anxiety level in the experimental group was significantly lower than in the control group (47.3 ± 4.2 Vs 72.5 ± 3.2 and 33.7 ± 4.5 Vs 71.4 ± 2.2 respectively, P < 0.001).

Table 3: Comparison of labour outcome scores between experimental and control group (n= 30)

Experimental group		Control group		't' Value	'p' Value
Mean	SD	Mean	SD		
29.3	1.2	25.3	2.2	6.135	< 0.001

Table 3 shows that the labour outcome between the two groups was statistically very high significant ($p < 0.001$).

4. DISCUSSION

The current study was aimed to evaluate the effectiveness of doula care on anxiety and labour outcome among parturients. This aim was realized through the present study findings, which revealed significant decline in anxiety among the experimental group subjects compared to those of the control group. As well as, experimental group subjects showed good labour outcome than the control group. Most (73.3%) and (60%) primi parturients were in the age group of 29 - 29 and 20 - 24 years in experimental and control group. With respect to education (60 %) and (40 %) primi parturients were graduates. Majority (66%) and (80%) of primi parturients were house wives in experimental and control group. 60 % and 73.3 % of primi parturients belonged to Christian in experimental and control group. Majority (100%) and (93.3%) of primi parturients belongs to nuclear family in both experimental and control group. Most (66.7%) and (53.3%) of primi parturients living in the rural area in experimental and control group. Regarding gestational weeks 60% of primi parturients belonged to 37 - 38 weeks in experimental and 80% of primi parturients belonged to 39-40 weeks in control group. Among them 100 % and 80% of primi parturients not attended prenatal class in both experimental and control group. 100% of primi parturients from both groups had clear amniotic fluid. Most (53.3%) of monthly family income Rs.21000 - 25000 and (60%) of family income Rs.26000 - 50000 in experimental and control group. Among them 100 % of primi parturients had 2.30 to 3.00 kg of estimated fetal weight by ultrasound in experimental and control group. Concerning anxiety, experimental group of the present research work recorded lower anxiety scores than those of the control group. Primi parturients who received doula care during labour experience lower anxiety scores than those who not received doula care ($P < 0.001$). Likewise, a quasi-experimental study done by Heena et al (2020) in Chandigarh, India found a significant decline of the anxiety scores on anxiety scale among parturients received doula care. In the present study revealed that the labour outcome between the experimental and control group was statistically very highly significant ($P < 0.001$). This result coincided with another quasi-experimental study done by Henzia (2015) in India revealed that companionship of labour with doula is effective to improve the labour outcome.

5. CONCLUSION

The present study findings revealed that doula supportive behaviours including physical and psychological support with the woman in labour caused reduction in anxiety and promote labour outcome. Thus, doula care could also be used as a simple, inexpensive, non-invasive method for reducing anxiety and improving the labour outcome.

6. REFERENCES

- [1] Alehagan S, Wijma B, Lundberg V. Fear, Pain and Stress hormones during childbirth. *Journal of Psychosomatic Obstetrics and Gynaecology*, 2005; 26(3) : 153-165.
- [2] McLeish J, Redshaw M. A qualitative study of Volunteer doulas working alongside midwives at births in England: Mother's and doula's experiences. *Midwifery*. 2018 Jan; 56: 53-60.
- [3] Berg M, Terstd A. Swedish women experiences of doula support during childbirth. *Midwifery*. 2006 Dec; 22 (4): 330-8.
- [4] American College of Obstetricians and Gynecologists. Safe prevention of the Primary Cesarean delivery. *The society of maternal fetal medicine*, 2014; 123 : 693.
- [5] Kayne MA, Greulich MB, Albers LL. Doulas: an alternative yet complementary addition to care during childbirth. *Clinical Obstet Gynecol*, 2011; 44: 692-703.
- [6] WHO recommendations. On health promotion interventions for maternal and newborn health. 2015.
- [7] <http://www.int/maternal-child-health-promotion-intervention/en>.
- [8] Hodnett ED, Gates S, Hofmeyr GJ, Sakala C, Weston J. Continuous support for women during childbirth. *Cochrane Database syst.Rev.*2011 Feb 16; (2): CD003766.
- [9] <http://www.indexmundi.com/india/maternal> mortality rate htm.
- [10] www.who.int/new.room/fact-sheets/details/maternal mortality, 16 Feb 2018.
- [11] Heen Devi, Sunita Sharma, Sukhjit Kaur, Pooja Sikka. Effect of of doula care on anxiety level among labouring mothers. *International Journal of Science and Healthcare Research*, 2020;4(5) : 309-316.
- [12] Henzia I T. Effectiveness of companionship on labour progress and maternal outcome. *Nightingale Nursing Times*, 2015; 6(XI) 50-52.