Effect of childbirth education classes on prenatal attachment

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Abstract

The childbirth education classes are a routine service in the developed countries, in order to inform the parents about the healthy development of the baby and to prepare the mother and father candidates in the birth and to start the new routine in the developing countries. This study was conducted to determine the effect of childbirth education classes on prenatal attachment.This descriptive case-control group research has been carried out between July-December 2016. The sample group consisted of a total of 246 pregnant women, 113 of whom were in the case group (participated in childbirth education classes) and 133 of whom were in the control group (didn't participated in childbirth education classes). In collecting the data, "Personal Information Form" and "Prenatal Attachment Inventory (PAI)" were used. The data of the case group were collected after the training was over. SPSS 15.0 statistical package program was used in the analysis of the data.The mean age of the case group was 25.36 ± 4.47 and the control group was 26.87 ± 5.47 in the study. It was determined that 23.9% of the pregnant women in the case group had graduated from secondary school, 84.1% did not work, 74.3% were three trimester, and 86.7% were planned pregnancies. It was determined that 21.1% of the pregnant women in the control group had graduated from secondary school, 87.2% did not work, 91.7% were three trimester and 79.7% had planned pregnancy. No statistically significant difference was found between the case and control groups in terms of descriptive and obstetric characteristics (p> 0.05). The mean PAI score of the case group was 38.30 ± 9.64 and the control group was 34.10 ± 10.52, and the difference was statistically significant (p = 0.001). It was determined that the prenatal attacment levels of the pregnants participating in the childbirth education class were higher.

Keywords: Prenatal attachment; childbirth education class; nursing.

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1. Introduction

Today, the search for accurate and up-to-date information about conscious families and the media's gestational process, birth, postnatal experiences and care of newborns has increased interest in childbirth education classes. The childbirth education classes are a service to prepare the mother and father candidates in the birth conscious manner and to start the new routine in the developed countries in order to inform the healthy development of the baby and the new ones in the developing countries. This service is provided to parents free of charge in some university hospitals in our country, in nursing schools of universities, in private hospitals and in the maternity wards of the Ministry of Health (Mete, 2008; Turan, Nalbant, Bulut & Sahip, 2001). There are also special antenatal training classes conducted by midwives, nurses and physicians (Oner, 2011).

Attachment is about the ability to build and maintain healthy relationships. Affiliation refers to the establishment of an emotionally positive and mutually supportive relationship between babies and parents (Gander & Gardiner, 2004). Prenatal attachment is an emotional connection between parents and unborn children. Attachment begins when you respond positively to the pregnancy. A tied mother believes that the unborn baby has a relationship with herself and sees it as a separate individual. At the same time he understands that the unborn baby is self-reliant for feeding and protection. Your baby thinks about what he will look like, how he will act and how he will develop throughout his life. These feelings of attachment help the mother to show her love and compassion, protect and nurture her, show her interest and interact, and be sensitive to her baby's needs (Ryan, 2010).Prenatal attachment may predict future relations between a mother and her child . Thus, it would be of benefit to determine factors that affect this relationship and discover methods to decrease prenatal attachment reducing factors to help the future of a mother and child. (Samani, Maroufizadeh, Ezabadi, Alizadeh & Vesali, 2016).

The early mother infant relationship is of critical importance, because it forms the basis for the child's future social, emotional and cognitive development .During the last two decades, investigators have identified many aspects of the mother–infant relationship. Maternal behaviours such as sensitivity, acceptance and co-operation have been associated with the establishment and maintenance of a positive relationship with her infant (Malm, Hildingsson, Rubertsson, Radestad & Lindgren, 2016). These feelings of attachment help the development of maternity identity, compliance with motherhood and love and compassion for her mother, protection and nourishment of her, interest and interaction with her, and sensitivity to the needs of the baby (Duyan, Kapisiz & Yakut, 2013). Research has shown that prenatal attachment drives good health practices during pregnancy, facilitates adjustment to parenting role, and protects against perinatal depression (Kavlak & Sirin, 2010). This study was conducted to determine the prenatal attachment effect of the Birth Preparation Classes.

2. Method

2.1. Study design

The study was a descriptive case-control study.

2.2. Setting and sample

The descriptive and cross-sectional study was performed at obstetric polyclinic and chıldbırth educatıon classes the Adana Maternity and Child Health Hospital between July-December 2016. Women who primipar, over the 20th gestational week, had a healthy fetus, were 18 years of age or older, had no risky pregnancy, had communication difficulty, and accepted to participate included the study.   There were 246 women in the study, including 113 cases and 133 control groups. Women who were attend childbirth education classes accepted as a case group. Women who were attend routine antenatal visit accepted as a control group. 3 main subjects were taught in the childbirth educational classes. These subjects; prenatal period, labor, mother and baby care.

2.3. Instruments

The data were collected "Personal Information Form", which includes the descriptive and obstetric characteristics of patients, and "Prenatal Attachment Scale (PBE)", to assess prenatal attachment. The data were collected face to face by the researchers. Personality Information Form: This form was prepared by researchers and included womens' socio-demographic characteristics (age, level of education, state of working, economic state, family type, etc.) and obstetric characteristics (number of pregnancy, opinion about pregnancy etc) .

The Prenatal Attachment Inventory (PAI): The Prenatal Attachment Inventory developed by Mary Muller in 1993. The reliability of the validity has been made by Kavlak and Sirin (2009) in Turkey. The scale, which is developed to explain and determine the thoughts, feelings and situations that women experience during pregnancy. PAI consists of 21 items. Each item is a four-point Likert type that can score between 4 and 1. 1: Never, 2: Always, 3: Frequently, 4: Always. The lowest score for the whole scale is 21, the highest score is 84. The increase in points taken by pregnant women indicates that the level of attachment also increases.

2.4. Data analysis

The statistical analyses were performed using SPSS for Windows version 16.0. Percentage, arithmetic average, Chi-square test, t-test, Mann-Whitney U-test, and Kruskal-Wallis tests were used to analyze the data. The level of significance was accepted as $p < .05$.

2.5. Ethical consideration

The School of Medicine institutional review board reviewed and approved the study protocol in 2015. First of all, the women included in the study were informed about the purpose of the study. They were also informed that the information collected on the issue would not be read by anybody apart from the researchers, and that the information would be used for scientific purposes and, in this way, their verbal permission was taken.

3. Results

The mean age of the case group was 25.36 ± 4.47 and the control group was 26.87 ± 5.47 in the study. It was determined that 50.9% of the pregnant women in the case group had graduated from secondary school, 45.2% did not work, 77.3% were over 28 weeks of gestational week, and 48% were planned pregnancies. It was determined that 49.1% of the pregnant women in the control group had graduated from secondary school, 54.8% did not work, 89.7% had a gestational week of 28 weeks and over, and 52% had planned pregnancy. No statistically significant difference was found between the case and control groups in terms of descriptive and obstetric characteristics (p> 0.05).

Table 1. Distribution of mean scores of PAI

Scale	Case Group	Control group	t test
Prenatal Attachment Inventory	38,30± 9,64	33,51± 10,07	t=-3,237 p=0,001

The total PAI mean score of the women in the case and control groups are presented in Table

1. The mean PAI score of the case group was 38.30 ± 9.64, and the mean score of the control group was 33.51 ± 10.07. There was statistical significance between the mean scores of the case and control group (p <0.05).

Table 2. Comparison of the PAI mean scores of the demographic characteristics of the women in the case and control groups

Demographic characteristics	Case group(113) n	%	Control group(133) n	%	Case group Mean±s.s	Test value	Control group Mean±s.s	Test value
Age (years)								
19 years and ↓	7	7,5	10	6,2	43,28±10,96	KW=0,715	40,16±11,28	KW=6,172
20-24	45	29,3	39	39,7	35,73±7,99	p=0,152	29,58±5,78	p=0,104
25-29	43	32,3	43	38,1	38,93±9,82		34,06±10,27	
30-34	14	20,3	27	12,4	41,64±12,61		35,37±12,65	
35 and ↑	4	10,5	14	3,5	40,00±5,94		35,20±11,64	
Place of Residence								
Village	2	1,8	6	4,5	50,50±16,26	KW=4,504	25,50±3,53	KW=1,852
County	19	16,8	42	31,6	41,36±7,33	p=0,105	35,20±12,01	p=0,396
Town	92	81,4	85	63,9	37,40±9,73		33,05±9,19	
Age of marriage								
1-5 year	95	84,0	80	60,2	37,94±9,03	KW=1,427	33,09±8,39	KW=0,153
6-10 year	15	13,3	27	20,3	38,7333±11,71	p=0,490	29,28±7,88	p=0,926
11year and ↑	3	2,7	29	19,5	47,3333±16,80		41,00±15,92	
Women's education level								
Primary school								
Secondary School	35	31,0	65	48,9	38,17±11,89		33,40±10,54	
High school	27	23,9	28	21,1	38,40±8,88	KW=0,231	32,60±8,65	KW=0,423
University	34	30,1	24	18,0	38,88±9,92	p=0,973	35,53±12,49	p=0,936
	17	15,0	16	12,0	37,71±9,10		32,53±7,65	
Women's occupation								
Employed								
Unemployed	18	15,9	17	12,8	38,66±9,71	MWU=0,175	32,15±11,78	MWU=-0,529
	95	84,1	116	87,2	38,23±9,68	p=0,862	33,77±9,79	p=0,593
Husband's education level								
Primary school	17	15,0	56	42,1	37,88±6,89	KW=1,393	34,35±10,08	KW=1,022
Secondary School	17	15,0	28	21,1	40,35±9,47	p=0,707	32,53±9,34	p=0,796
High school	43	38,1	43	12,8	38,53±9,11		32,40±10,08	
College-faculty	36	31,9	17	54,1	37,25±11,47		34,58±11,82	
Husband's occupation								
Yes								
No	105	92,9	127	95,5	38,43±9,69	MWU=0,546	32,90±9,35	MWU=2,831
	8	7,1	6	4,5	36,50±9,28	p=0,586	49,00±17,77	p=0,006
Economic income								
Income<expendure								
Income=expendure	30	26,5	36	27,1	38,36±9,11	KW=3,534	33,89±11,15	KW=3,053
Income>expendure	69	61,1	83	62,4	37,28±9,65	p=0,175	32,32±9,23	p=0,217
	14	12,4	14	10,5	43,14±9,86		38,27±11,34	
Family type								
Nuclear	95	84,1	106	79,7	37,96±8,95	MWU=-0,841	33,11±10,26	MWU=-0,683
Large	18	15,9	27	20,3	40,05±12,87	p=0,402	35,00±9,51	p=0,496

Table 3. Comparison of the PAI scores of the obstetric characteristics of the women in the case and control groups

Features	Case group(113) n	%	Control group(133) n	%	Case group(113) Mean±s.s	Test value	Control group(133) Mean±s.s	Test value
Pregnancy week								
2nd trimester	29	25,7	11	8,3	39,89±10,57	MWU=0,177	35,40±7,82	MWU=0,668
3rd trimester	84	74,3	122	91,7	37,75±9,30	p=0,841	33,38±10,24	p=0,430
Number of pregnancie								
Primigravida	73	64,6	43	32,3	38,26±9,66	T=0,060	33,70±10,57	T=-0,120
Multigravida	40	35,4	90	67,7	38,37±9,72	p=0,952	33,41±9,91	p=0,905
Planned pregnancy								
Yes	98	86,7	106	79,7	38,03±9,69	MWU=0,760	34,09±10,62	MWU=1,072
No	15	13,3	27	20,3	40,06±9,44	p=0,449	31,00±6,97	p=0,287
Baby'gender								
Girl	59	52,2	76	57,1	38,86±10,09	T=0,1648	32,26±10,33	T=-1,169
Boy	54	47,8	57	42,9	37,68±9,18	p=0,519	34,89±9,73	p=0,246
Baby'gender want								
Girl	67	59,3	86	64,7	38,89±8,83	T=0,790	33,26±9,50	T=0,307
Boy	46	40,7	47	35,3	37,43±10,75	p=0,438	34,00±11,29	p=-0,611
Antenatal follow-up								
Yes	110	97,3	131	98,5	38,20±9,63	MWU=-0,611	33,20±9,75	MWU=2,527
No	3	2,7	2	1,5	41,66±11,37	p=0,542	58,00±0,00	p=0,014
Opinion about pregnancy								
Wants	94	83,2	100	75,2	37,50±9,38	MWU=-0,189	33,06±9,88	MWU=-0,736
Don't want	19	16,8	33	24,8	42,26±10,15	p=0,491	35,05±10,88	p=0,064
The husband's view about pregnancy								
Wants	104	92,0	112	84,2	38,15±9,38	MWU=-0,549	33,95±10,21	MWU=0,982
Don't want	9	8,0	21	15,8	40,00±12,85	p=0,584	30,72±9,15	p=0,327
Who came with the antanatal controls								
Spouse	31	27,4	54	40,6	38,87±11,42	KW=1,361	32,43±8,93	KW=1,361
Alone	52	46,0	36	27,1	38,65±9,12	p=0,715	34,53±8,90	p=0,715
Mother-in-law / mother	18	15,9	26	19,5	38,27±9,25		34,53±11,45	
Friend	12	10,6	17	12,8	35,33±7,83		32,44±15,00	

4. Discussion

In the study we did, the total score of the PAI scale was 38,30 ± 9,64 in the case group and 33,51 ± 10,07 in the control group. Duyan, Kapisiz and Yakut (2013) When the total score of the PAI scale, in which the validity was reliable on a group of pregnant women, was 42.88 ± 11.26. Siddiqui and Hagglof (2000). When the total score of the PAI scale, in which the validity was reliable on a group of pregnant women, was 60.91±9.28 (Aksoy, Yilmaz & Aslantekin, 2016). When the total score of the PAI scale, in

which the validity was reliable on a group of pregnant women, was 56,76±9,2. Compared to the studies in the literature, the total score of the PAI scale in our study was found to be lower than the others.

It was showed that maternal age affects maternal-infant attachment (Abasi, Tahmasebi, Zafari & Takami, 2012). In this study, the PAI mean scores were higher both case and control groups. As the ages of women in the control group progressively increase. Lindgren (2001) and Damato (2004) also found that there is no relationship between maternal age and prenatal attachment, the total PAI mean scores decrease. In this study; the PAI mean scores were not associated with the women' age (Siddiqui & Hagglof, 2000; Ossa & Fernandez, 2012).

It was showed that as the week of gestation increases, prenatal bonding increases in the literature (Armstrong, 2002; Vevoda, 2008; El-Hage et al.,2012). However, in our study, we found that women in the second trimester both case and control groups had a higher average PAI score when compared to second, third, trimester. In contrast to our study, Tsartsara and Johnson (2006) found that maternal-infant attachment increased significantly in the third trimester. There was no statistically significant difference between the gestational week and prenatal attachment of the women in the case and control group (p <0.05).

When we investigated the effect of the pregnancy births on prenatal attachment in our study, there was no statistically significant difference (p <0,05) even though the average of the women in the case group was higher than the control group (Siddiqui & Hagglof, 2000; Vedova, 2008). According to Ossa and Fernandez (2012), there was no relationship between number pregnancy and prenatal attachment in parallel with my inability to work. There was no statistically significant difference between pregnancy births and prenatal attachment of the women in the case and control group (p <0.05).

In our study, it was found that education level and economic status did not affect prenatal bonding . There are also similar results in literaure (Yilmaz & Kızlkaya-Beji, 2010; Vedova, 2008; Abasai, Tahmasebi, Zafari & Takami, 2012).

5. Conclusion and Recommendations

The mean PAI score of the case group was 38.30 ± 9.64, and the mean score of the control group was 33.51 ± 10.07. There was statistical significance between the mean scores of the case and control group (p <0.05). In our study, the mean PAI total scores of case group were found higher in the case group. According to this result, prenatal childbirth educational classes seem to increase prenatal bonding. But this increase is not at the level of demand. In order to further increase the average PAI, it is possible to make attachments related to the connection of mother infant in the content of the pregnant education class topic. Pre-natal care is a good opportunity to evaluate your mother-infant attachment. It is important to raise awareness of women and improve mother-infant attachment by giving trainings about mother-infant relationship from the moment the baby is determined.

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