The Whole is Greater than the Sum of the Parts: The Effects of an Antenatal Orientation Interviews Training for Prospective Parents Postnatal Depression Levels

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Abstract
The aim of this study was to examine an antenatal orientation interviews training for prospective parents' postnatal depression levels. A quasi-experimental study carried out with 26 (12 experimental, 14 control) prospective mother and father. Participants completed the Edinburgh Postnatal Depression Scale one week before the intervention and 12 weeks after birth. Participants in experimental group received a four week new situation orientation interviews training for parents but any intervention made in control group. Results of this study suggested that albeit analyzing the orientation interviews of the males and the females in the experimental group, individual depression scores were observed to decrease, but this decrease was found to be statistically insignificant. However, once the depression levels of the families were analyzed as a whole, the parents' prenatal and postpartum depression levels were similar in the control group but parents in the experimental group post-partum depression levels were significantly decreased in postnatal period.

Keywords: Postpartum depression, antenatal orientation interviews, prospective parents, Turkey.

Introduction
Pregnancy is a critical period which requires many women to re-adapt to life because of psychological, social, and emotional changes in the antenatal and postnatal periods. This process may result in women carrying a heavy burden caused by stressful life events, such as health problems, redefined family relationships, problems with the nutrition and the care of the baby, adapting to new life with the baby, and problems in the relationship with the spouse during pregnancy (Ayvaz, Hocaoğlu, Tiryaki, & Ak, 2006). Although pregnancy and having a baby are greatly desired experiences for many women, this process may lead some psychological problems, no matter how well the prospective mother is prepared (Ayvaz et al., 2006; Kara, Çakmaklı, Nacak, & Türeci, 2001; Nur, Çetinkaya, Bakır, & Demirel, 2004).

Today, the notion that pregnancy represents a time of “feeling good” or a protective period of mental health is now being rejected (Solmuş, 2012); instead, the notion that the possibility of suffering psychiatric disorders in the postnatal period increases is widely accepted (Aşkı, 1999; Etchegoyen, 2005; Nelson, 2003; Weissman & Olfson, 1995). Therefore, pregnancy may be said to be one of the periods in which extreme stressors for prospective mothers and fathers emerge in physiological, psychological, and social aspects of their lives (Marakoğlu & Şahsıvar, 2008). For example, the prospective mother’s effort to adapt to the new circumstance, in other words, to set a new balance between life and herself is one of the psychological stressors for her (Solmuş, 2012).

Birth represents one of the periods in which women are mentally most fragile. Stocky and Lynch (2000) found that the possibility that a woman will consult a psychiatry center in the three months after the birth was reported to be 20 times higher compared to antenatal period.

One of the most frequently seen mental disorders in the postnatal period is depression. Beck and Alford (2014) define depression as a period of changes in mood, such as loneliness; the wish to punish one’s self and to regress, such as desisting from desires, repression, or elimination; vegetative changes, such eating disorders, lack of sleep, and loss of libido; changes in activity level, such as agitation and postponing; and a negative conception of self caused by feelings of worthlessness and excessive guilt. The American Psychological Association (2013) defines the term depression as a mood disorder in which functional disorder is seen along with changes in sleep and appetite, loss of interest and pleasure in daily activities, psychomotor changes, inability to concentrate, exhaustion, hopelessness and helplessness, and recurrent thoughts of suicide. Depression negatively affects the functionality, happiness, family life, and social relationships of women. It also decreases quality of life and

...
causes losses in work productivity (Çalık & Aktaş, 2011; Sağduyu, Ögel, Özmen, & Boratav, 2000). When early diagnosis and proper treatment are failed, it causes risk factors for suicide (Jeon, 2011; Takahashi, 2001).

Studies examining the normal and pathological results of the experience of giving birth have shown that the postnatal period is a time when there are crucial psychological changes in families. According to Durat (2003), postnatal period is three to four times higher risk for women than the pregnancy period. Thus, serious mental and affective disorders may emerge, and depression in the postnatal period are reported to affect 10–15% of all mothers (Durat, 2003).

Considering the stress factors during to the pregnancy process, the possibility that family members will face depression may also increase. To effectively prevent depression, informing families about the risks associated with the antenatal period and about the possible problems related to these risks may lessen the risk of depression. Additionally, informing people about what kind of a life they will have; the difficulties of this new life; how they can overcome crises related to having a baby; and providing emotional support may facilitate their adaptation to this new life (Solmuş, 2012).

Marakoğlu and Şahısıvar (2008) showed that depression may not only have psychological effects on the mother but also on their babies. This is important not only in psychological intervention practices for the mother herself but also because of its direct effects on children’s and families’ mental health, as well as the direct impact on the health and prosperity of a society (Gözüyeşil, Şirin, & Çetinkaya, 2008).

Some researchers noted that fear of being labeled by society may prevent early diagnosis and that the mother, who is in need of help, may be hindered from seeking psychological help (Beck, 2001). Women may have difficulty expressing their emotional troubles for fear of being stigmatized and not meeting the expectations of the mother stereotype created by the society. Even if women at risk for PND are assisted by health service attendants, they pretend that they can cope with parental problems; most do not have professional help and half of these people provide support from friends or their extended family members. Because depression is difficult to diagnose for primary health service attendants, about 50% of patients with depressive disorders are not detected (Bilszta, Ericksen, Buist, & Milgrom, 2010; McCarthy & McMahon, 2008).

Studies in Turkey are mostly cross-sectional and focus on student samples (Şahin, Barut, & Ersanlı, 2013a, 2013b; Şahin, Barut, Ersanlı, & Kumcağız, 2014; Şahin, Ersanlı, Kumcağız, Barut, & Ak, 2014; Şahin & Topkaya, 2015) or on adults (Gençoğlu, Topkaya, Şahin, & Kaya, 2016). However, since research has shown that so many people have mental illnesses in different stages of life, perinatal interventions in particular are expected to have positive effects on new parents.

Factors such as women’s inability to distinguish between typical postnatal stress level and depressive symptoms, which require professional psychological help, and; that they seek treatment in a “time of crisis”; and that most of them avoid pharmacological treatment increase the importance of preventive interventions for PND. Nevertheless, only one quasi-experimental study on decreasing postnatal depression level was found in available Turkish literature (Durat, 2003). In this study, the effects of nursing practices on postnatal depression levels in pregnant women with a high risk of depression were examined, and nursing care was decreased the postnatal depression risk in mothers. However, the researcher failed to examine the effects on fathers. Also, the study aimed at helping prospective mothers in gaining child care skills, yet whether this had an effect on prospective fathers’ and the family’s mental health is unknown. Therefore, revealing the effects of prospective fathers and mothers as well as parents’ mental health in the postnatal period is expected to advance our knowledge on this subject.

Studies on the prevalence of depression have shown that major depression prevalence in women varies between 10–25%, and depression is occurring two to three times more in women than in men. Moreover, the risk of depression increases in women during the perinatal period and with childbearing. While 26% of women suffer depression during pregnancy, 45–65% of woman experience this mental disorder during the postnatal period (Efe, Taşkıın, &EROĞLU, 2009).

Postnatal depression (PND), which is the term used for all depressive disorders emerging after childbearing, is defined as the depression which appears in the first year after giving birth (Beck, 2001; Lee & Chung, 2007; Marakoğlu, Özdemir, & Çivi, 2009). Studies examining the vulnerability factors associated with the development of PND found risk factors such as depression and anxiety during the pregnancy period, stressful life events during pregnancy, low social support, and formerly suffering from depression were reported to be strongly positively related to PND. On the other hand, factors such as stress related to child care, mother’s low self-esteem, a bad-tempered baby, and mother’s neuroticism were reported to be moderately and positively related to PND, factors such as perinatal complications, negative cognitive changes, weak relationship between partners, low socioeconomic status, and low income were found to be weakly positively related to PND (C.T. 2003).
Researchers increasingly recognized the importance of cultural and psychosocial factors along with biological and hormonal ones when studying postnatal mental health (Beck, 2001; Deveci, 2003). Maternity means a crisis of maturation for a woman. When a woman comes home from the hospital, she faces new responsibilities as a mother and a housewife. Therefore, she may have difficulty in adapting to the child and her new identity (Deveci, 2003).

The motherhood is a process which requires observation and active participation, and it is mostly a mastered process. The past maternity experiences of women are among the important growing and nurturing role patterns of a female. In Western culture, women often do not become active in the care of a baby before having their own babies. Families are in pursuit of improving the quality of their children’s lives, contributing to their development, and establishing a positive relationship with their children (Hamilton-Dodd, Kawamoto, Clark, Burke, & Fanchiang, 1989). By increasingly taking part in working life, as happens in other countries, women in Turkey now prepare to take on the roles of independent career women, besides the traditional roles of mother and wife.

Wee, Skouteris, Pier, Richardson, and Milgrom (2011) propose that most previous studies on postpartum depression focused mostly on women because of the common belief that only women suffer as a result of pregnancy and postnatal depression. However, there are problems that men have to overcome as well. For instance, a father’s forming the necessary cognitive and affective resources to establish a safe and supportive relationship with his child, his help in the care of the new-born baby and his support for the mother in her new role, difficulty in adapting to changes that may appear following the baby’s birth, and new requirements that the male will face with paternity are some of these issues. For this reason, these problems, which must be overcome, lead not only women to a series of psychological illnesses, but also men, and they are found in men as well in the antenatal and postnatal periods (Wee, Skouteris, Pier, Richardson, & Milgrom, 2011).

Information is extremely important in this age so as to adapt easily to new situations. It is particularly important during the very delicate and important process of transition into becoming a family. Within the context of psychological counseling and guidance services, individuals gain information through services such as consultations, orientations, and interviews. In orientation interviews, one of the types of interviews, the main aim is to help individuals make decisions, help them adapt to their new environments, and provide information to people being affected by their decisions (Özgüven, 1992). In this critical period, mental health issues will affect the whole family and change the dynamics. The prosperity of the family, regarded as the smallest unit of a society, is quite important in maintaining the prosperity of the society. For this reason, psychological counseling and guidance services for prospective mothers and fathers may bear a significant role in preventing mental disorders in the pre and postnatal periods. The purpose of this study is to examine the effects of orientation interviews on prospective mothers and fathers on PND after birth. In line with this purpose, the following hypotheses were tested.

1.1. Hypotheses
1. While the PND scores of the prospective mothers who participated in the orientation interviews before the birth were similar before the intervention, after the intervention, they lessened significantly compared to the scores of the prospective mothers who did not participate in this program.
2. While the PND scores of the prospective fathers who participated in the orientation interviews before the birth were similar before the intervention, after the intervention, they lessened significantly compared to the scores of the prospective fathers who did not participate in this program.
3. While the PND scores of the prospective fathers and mothers who participated in the orientation interviews before the birth were similar before the intervention, they lessened significantly after the intervention compared to the scores of the prospective fathers and mothers who did not participate.

Method
2.1. Research Design
The effects of orientation interviews performed during pregnancy on the levels of postnatal depression were examined using a quasi-experimental research design in this study. The study was also appropriate for the pre-test/post-test control group design. Table 1 depicts the research design used in this study.
Table 1. Research Design

<table>
<thead>
<tr>
<th>Groups</th>
<th>Pre-test</th>
<th>Intervention</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>PIF and EPDS</td>
<td>Orientation Interviews</td>
<td>PIF and EPDS</td>
</tr>
<tr>
<td>Control</td>
<td>PIF and EPDS</td>
<td>No Intervention</td>
<td>PIF and EPDS</td>
</tr>
</tbody>
</table>

*Note. PIF: Personal Information Form, EPDS: Edinburgh Postnatal Depression Scale.*

2.2. Participants

The participants of this study selected using convenience sampling and included the prospective mothers and fathers who resided in Atakum district in Samsun, Turkey. They were interviewed while they were paying a visit to hospital. The prospective mothers and fathers were required to meet the following inclusion criteria to be included in the study: not to have a serious mental illness history before the study and to be literate enough to be able to respond to the questions in the questionnaire; the prospective mothers should not be in the perinatal period and the family was asked to be eager to participate in the study.

The participants were composed of 14 couples (28 prospective mothers and fathers) who met the criteria of participation and volunteered to participate. Then, 7 couples were randomly assigned to the experimental group and 7 couples to the control group; however, one couple from the experimental group left the study before the intervention ended. Therefore, the study carried on with 12 participants in the experimental group, and 14 in the control group.

The age of the participants in the experimental group ranged from 25 to 34 and the average age was 30.25 (SD: 2.80). Of the individuals in the experimental group, 8.3% (n=1) were secondary school graduates, 8.3% (n=1) were high school graduates, and 83.3% (n=10) had a bachelor’s degree. While 75% (n=9) of the individuals in the experimental group had a job, 25% (n=3) did not work. The age of the participants in the control group ranged from 25 to 40 and the average age was 30.50 (SD: 4.85). In this group, 21.4% (n=3) of the individuals were high school graduates and 78.6% (n=9) had a bachelor’s degree. Similarly, while 21.4% (n=3) did not have jobs, 78.6% (n=9) did. The participants in both groups were similar in terms of average age (t (24)=1.42, p>.05), educational status (χ² (2, N=26)=1.91, p>.05), and working status (χ² (1, N=26)=.05, p>.05).

2.3. Measures

Edinburgh Postnatal Depression Scale (EPDS): The Edinburgh Postnatal Depression Scale was used to measure the participants’ depression levels. The EPDS was originally a self-report scale developed by Cox, Holden, and Sagovsky (1987) to measure the level and the risk of depression in women in the postnatal period. When the cutoff score of the scale was taken to be 12/13 suggested by the researchers, its sensitivity was found to be .85, its specificity was 0.77, its positive predictive value was .83, and its negative predictive value was .78. Moreover, Cronbach’s Alpha internal consistency was reported to be .87 and split-half reliability was reported to be .88 (Cox et al., 1987).

The validity and reliability studies of the EPDS in Turkish culture were performed by Engindeniz, Küey, and Kültüür (1996). When the cutoff score of the adapted EPDS was determined to be 12/13 as suggested by original study (Engindeniz et al., 1996), its sensitivity was found to be .84, its specificity to be .88, its positive predictive value to be .69, and negative predictive value to be .94. The Cronbach’s Alpha internal consistency coefficient of the scale was .79 (Engindeniz et al., 1996). Recently, a study on women in the 2nd – to 13th postnatal weeks demonstrated a very strong positive (r=.71) relationship between the total EPDS scores and the Postnatal Depressive Symptoms Scale scores evidencing its convergent validity (Karaçam & Kitiş, 2008).

Although it was firstly employed to measure women’s postnatal depression levels, it was subsequently used in a number of many studies including Turkey to measure fathers’ postnatal depression levels as well (Çak et al., 2015; Genesoni & Tallandini, 2009; Goodman, 2004; Serhan, Ege, Ayranç, & Kosgeroglu, 2013; Wee et al., 2011). Similarly, EPDS was also used in this study to measure prospective fathers’ depression levels.

The EPDS is a four-point Likert type scale consisting of 10 items. Participants asked to indicate the statement that best defines their mood in the last week including the current day. Five of the items are positively worded and five of them are negatively worded. The negatively worded items are converted into positively worded ones before the overall total scale score calculated, which is determined by adding together the scores for each of the 10 items. Higher scores indicate more depressive symptoms. Scores from the scale can range from 0 to 30. An example item is: “I have felt sad or miserable.” Participants respond to this statement by marking one of the following options: Most of the time, Not very often, Not at all, Never.

Personal Information Form: This form used to obtain information about participants’ age, gender, educational level, and working statuses.
2.4. Intervention
After the participants completed the measurement instruments, the couples in the experimental group received orientation interviews through home visits. Presentations about the main subjects in interviews were utilized so that they could be more understandable. The interview days were determined by the participants. All interviews were completed in one month. In the first session of the orientation interviews, the participants were informed about the content of the interviews and about the process of practice. The main topics were pregnancy psychology in parents, individuals’ expectations and concerns about the pregnancy period, psychological changes occurring in prospective parents and spouses, and environmental support during pregnancy. The session was summarized at the end of the interview and the couples were given information leaflets about the topics. In the second session, the effects of alcohol and drug use during pregnancy on the pregnant woman, dressing during pregnancy, working life during pregnancy, using technological devices, sexual life during pregnancy, probable ailments during pregnancy, nutrition during pregnancy, and remarkable points were discussed in detail. The session was also summarized at the end of the interview and the couples were given information leaflets about the topics. In the third session of the orientation interviews, how the prospective mothers should be prepared for the birth, symptoms indicating that the birth is imminent, changes in the confinement period, as well as breast milk, how to suckle the baby, and common sucking problems were discussed. The session was again summarized at the end of the interview and the couples received information leaflets. In the last session of the orientation interviews, house preparations to be made for the baby, the reasons why babies cry and how women can deal with this, common problems in babyhood and recommended solutions, postnatal maternal psychology, the significance of parents for infancy mental health, paternal psychology, recommendations to fathers about activities to be done in the first months and years of parenthood, and how parents could communicate with their babies were discussed.

2.5. Data Analysis
Statistical Package for Social Sciences (SPSS) 23 computer program was used for data analyses. Assumptions of statistical analyses were examined. Firstly, the assumption of normality was analyzed in order to determine whether parametrical or non-parametrical statistics would be used in the data analysis. The assumption of normality was tested considering the sample size using the Shapiro-Wilk test, which is used when the number of participants in each group is 50 or fewer (Field, 2013; Ho, 2013; Mooi & Sarstedt, 2011; Pallant, 2010). The Shapiro-Wilk test is examines the hypothesis that the sample data come from a normal distribution. While the fact that the test yielded significant results pointed to the fact that the data were not of normal distribution, the non-significant test results showed the reverse. The pre-test scores of the women and the post-test scores of the men in the control group did not normally distributed, as a result, non-parametric tests were performed (Field, 2013; Ho, 2013; Pallant, 2010). The Mann-Whitney U test for independent samples was used to compare the differences in the groups in terms of the pre-test and the post-test scores of the individuals in both groups, and the Wilcoxon Signed-Rank test was performed in order to compare the scores of the individuals in both groups before and after intervention. The \( \alpha = .05 \) significance level was taken into consideration in all statistical analyses.

Results
To test the first hypothesis of the research, firstly, PND scores of the mothers who participated and who did not participate in the orientation interviews were examined by Whitney U test. Then, the scores before and after the intervention were analyzed by a series of Wilcoxon Signed-Rank test.

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>U</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group</td>
<td>7</td>
<td>6.29</td>
<td>44.00</td>
<td>16.00</td>
<td>.72</td>
<td>.474*</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>6</td>
<td>7.83</td>
<td>47.00</td>
<td>16.00</td>
<td>.72</td>
<td>.474*</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: \( p > .05 \).

As seen in Table 2, there was no significant difference between the EPDS pre-test mean scores of the women in both groups \( (U=16.00, z=.72, p>.05) \). Accordingly, the level of depression of the prospective mothers in both groups before the intervention was similar.

A series of Wilcoxon Signed-Rank test was performed in order to determine whether there was a significant difference between the EPDS pre-test and post-test scores of the prospective mothers in both groups
before and after the intervention. Table 3 shows the statistics for the mothers in the experimental group; Table 4 shows the statistics for the control group.

Table 3. The results of Wilcoxon Signed-Rank test for mothers in the experimental group

<table>
<thead>
<tr>
<th>Score</th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing</td>
<td>5</td>
<td>3.90</td>
<td>19.50</td>
<td>1.90</td>
<td>.058*</td>
</tr>
<tr>
<td>Increasing</td>
<td>1</td>
<td>1.50</td>
<td>1.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.90</td>
<td>.058*</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. p > .05*.

Table 4. The results of Wilcoxon Signed-Rank test for mothers in the control group

<table>
<thead>
<tr>
<th>Score</th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing</td>
<td>3</td>
<td>3.88</td>
<td>15.50</td>
<td>.26</td>
<td>.798*</td>
</tr>
<tr>
<td>Increasing</td>
<td>2</td>
<td>4.17</td>
<td>12.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>.26</td>
<td>.798*</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. p > .05*.

As seen in Table 3, although there was a decrease in the scores of the mothers in the experimental group after the orientation interviews, this decrease was not statistically significant (z=1.90, p>.05). Similarly, there was no significant difference between the pre-test and post-test scores of the mothers in the control group (z=.26, p>.05).

To test the second hypothesis of the research, firstly, PND scores of the fathers who did and who did not participate in the orientation interviews were tested and examined by Whitney U test. Then, the scores before and after the intervention were analyzed by a series of Wilcoxon Signed-Rank test.

Table 5. Mann-Whitney U test results of prospective fathers in the control and the experimental group

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>U</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group</td>
<td>7</td>
<td>5.29</td>
<td>37.00</td>
<td>9.00</td>
<td>1.74</td>
<td>.081*</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>6</td>
<td>9.00</td>
<td>54.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: p > .05*.

As seen in Table 5, there was no statistically significant difference in the mean EPDS pre-test scores of the males in both groups (U=9.00, z=1.74, p>.05). Accordingly, the depression levels of the males in both groups before the intervention was similar.

A series of Wilcoxon Signed-Rank test was performed in order to determine whether there was a significant difference between the EPDS pre-test and post-test scores of the prospective fathers in both groups before and after the intervention. Table 6 displays the statistics for the fathers in the experimental group; Table 7 displays the statistics for the control group.

Table 6. The results of the Wilcoxon Signed-Rank test for prospective fathers in the experimental group

<table>
<thead>
<tr>
<th>Score</th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing</td>
<td>4</td>
<td>4.50</td>
<td>18.00</td>
<td>1.58</td>
<td>.114*</td>
</tr>
<tr>
<td>Increasing</td>
<td>2</td>
<td>1.50</td>
<td>1.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. p > .05*.

Table 7. The results of the Wilcoxon Signed-Rank test for prospective fathers in the control group

<table>
<thead>
<tr>
<th>Score</th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing</td>
<td>3</td>
<td>2.67</td>
<td>8.00</td>
<td>.14</td>
<td>.891*</td>
</tr>
<tr>
<td>Increasing</td>
<td>2</td>
<td>3.50</td>
<td>7.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. p > .05*.

As seen in Table 6, although there was a decrease in the scores of the fathers in the experimental group
after the orientation interviews, this decrease was not statistically significant ($z = 1.58, p > .05$). Similarly, there was no significant difference between the pre-test and post-test scores of the fathers in the control group. To test the third hypothesis of the research, firstly, the PND scores of the prospective families who did and who did not participate in the orientation interviews were tested and examined by Whitney U test. Then, the scores before and after the intervention were analyzed by a series of Wilcoxon Signed-Rank test.

**Table 8. Mann-Whitney U test results of the families in the control and the experimental group**

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>$U$</th>
<th>$z$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group</td>
<td>14</td>
<td>11.21</td>
<td>157.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>12</td>
<td>16.17</td>
<td>194.00</td>
<td>52.00</td>
<td>1.66</td>
<td>.098*</td>
</tr>
<tr>
<td>Total</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. $p > .05$.*

As seen in Table 8, there was no statistically significant difference in the mean EPDS pre-test scores of the families in both groups ($U = 52.00, z = 1.66, p > .05$). Accordingly, the depression levels of the families in both groups was similar before the intervention.

A series of Wilcoxon Signed-Rank test was performed in order to determine whether there was a significant difference between the EPDS pre-test and post-test scores of the families in both groups before and after the intervention. Table 9 displays the statistics for the families in the experimental group; Table 10 displays the results for the control group.

**Table 9. The results of the Wilcoxon Signed-Rank test for families in the experimental group**

<table>
<thead>
<tr>
<th>Score</th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>$z$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing</td>
<td>9</td>
<td>7.83</td>
<td>70.50</td>
<td>2.49</td>
<td>.013*</td>
</tr>
<tr>
<td>Increasing</td>
<td>3</td>
<td>2.50</td>
<td>7.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.49</td>
<td>.013*</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. $p > .05$.*

**Table 10. The results of the Wilcoxon Signed-Rank test for the families in the control group**

<table>
<thead>
<tr>
<th>Score</th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>$z$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing</td>
<td>7</td>
<td>6.07</td>
<td>42.50</td>
<td>.27</td>
<td>.782*</td>
</tr>
<tr>
<td>Increasing</td>
<td>5</td>
<td>7.10</td>
<td>35.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. $p > .05$.*

As seen in Table 9, the scores of the families in the experimental group after the orientation interviews decreased significantly ($z = 2.49, p < .05$). However, there was no significant difference between the pre-test and post-test scores of the families in the control group ($z = .27, p > .05$).

**Discussion**

This study examined the effects of orientation interviews with prospective fathers and mothers on their postnatal depression levels. Upon separately analyzing the orientation interviews of the males and the females in the experimental group, individual depression scores were observed to decrease, but this decrease was found to be statistically insignificant. However, once the depression levels of the families were analyzed as a whole, the depression levels of the families were found to decrease significantly. These results differed from the results showing that perinatal psychological interventions significantly lessen women’s postnatal depression levels (Collado, Saez, Favrod, & Hatem, 2014; Fathi-Ashtiani, Ahmadi, Ghobari-Bonab, Azizi, & Saheb-Alzamani, 2015; Leung et al., 2013; Mao, Li, Chiu, Chan, & Chen, 2012; Zlotnick, Tzilos, Miller, Seifer, & Stout, 2016). The fact that the results of this study differed from the results of the studies mentioned above may be attributed to a variety of reasons. First of all, this study utilized orientation interviews, which are a different aspect of individual therapy. However, all research studies mentioned above were performed through group counseling.

With his hopes, joys, worries, troubles, and contradictions, a human being struggles to find meaning in life, establish positive relationships, and gain satisfaction from life. However, stressful life events that individuals face such as birth, marriage, death, separation, catching a serious illness, and divorce, and unanticipated natural events, such as earthquakes, floods, landslides, plus important developmental tasks that he must overcome, may make a human being, who is a biopsychosocial entity, suffer from health, social, and
psychological problems. If the individual is able to overcome these problems with coping and problem solving skills, things are controllable; the individual continues creating healthy and balanced relationships and harmony is not disrupted. However, when individuals cannot overcome these troubles with the coping and problem solving skills that they have, explicit changes in their feelings, ideas, and behaviors may occur; disruptions in interpersonal relationships and social adaptation may happen; they will become mentally ill and need psychological support at the end of this process.

When psychological support is needed, individuals often get individual or group therapy. Compared to individual therapy, group therapy has some advantages, such as allowing individuals to meet people with similar problems or others who have formerly had those kinds of problems; group therapy helps people realize they are not alone; individuals have the chance to see how other group members may react; as a reflection of social macro cosmos, it creates opportunities for individuals to see their own behaviors from a different perspective, it helps raise group members’ levels of awareness (how they react, how they overcome problems), it helps individuals find the chance to display new behaviors that they have in group, it allows group members to reciprocally help each other, and it is more economical than individual psychotherapy (Yalom, 1995). Two of the most important advantages may be said to be that it allows individuals to meet people with similar problems or others who have formerly had those kinds of problems and it helps people realize they are not alone. Therefore, since women had fewer opportunities to view their problems from a different perspective, this may have made the intervention less effective. Secondly, the research mentioned above was performed over a longer period compared to this research. For instance, while Collado et al. (2014) implemented an 8–10-session intervention program, Fathi-Ashtiani et al. (2015) carried out an 8-session program. The fact that this research was performed in a short period may have prevented women from taking advantage of this intervention. Studies show that research on prospective mothers and fathers together may be more efficient. The prospective mothers and fathers in these classes stated that they had opportunities such as friendship, belongingness, to be able to speak clearly with someone who has had or will have the same problems, and that friendships established during the antenatal instruction classes supported women’s health and increased the level of self-efficacy (Nolan et al., 2012; Scott, Brady, & Glynn, 2001).

Thirdly, all programs differed in content. While this program had rather informative activities, other studies discussed different approach-based topics such as the participants’ overcoming irrational beliefs and thoughts, improving coping skills, reducing anxiety levels, enhancing interpersonal communication skills, self-control, and self-image. Generally, these interventions are for helping participants gain certain skills. Therefore, this research, carried out merely for information and orientation purposes, may be less efficient than different approaches that include skills education.

In addition, after reviewing instructive interventions related to antenatal, physical, and mental health in the literature, PND preventive studies were found to be scarce and that most of them used non-random probability samples (Dennis, 2003; Elliott et al., 2000; Kumar, Shıgeo, Hasegawa, Nomura, & Kumar, 1998). Moreover, in meta-analyses, it was also found that there was no consistent evidence for the efficiency of intervention studies or no long-term positive effects (Boath, Bradley, & Henshaw, 2005; Dennis, 2003; Gagnon & Sandall, 2007).

In this study, the male’s antenatal and postnatal depression levels did not differ significantly, although there was a decrease in depression scores in experimental group individuals. Misri, Kostaras, Fox, and Kostaras (2000) examined the effect of partner support on PND treatment and found that women who were visited by their spouses displayed fewer depressive symptoms than those who were not. Reasons such as males’ perceptions about pregnancy, birth, and child care as being outside of their responsibilities, the “feminine” atmosphere in these environments, and the problem of sparing time may have reduced their motivation and prevented them from taking advantage of the program. Alternatively, considering that more than 80% of the participants (experimental and control group) in this study were college graduates, educational level may be said to be quite higher than that of the average population of Turkey (Şahin et al., 2013a; Şahin, Barut, et al., 2014). Individuals seeking information about birth generally may be said to be well-educated people. Therefore, if the participants in the experimental group wanted to learn about how to care for a child, they would have likely already learned the information provided in the orientation interviews. Such an effort may have lessened the difference the interviews created in both groups. Also, studies show that the time of measurement made after the intervention may alter the effects of the intervention (Lara, Navarro, & Navarrete, 2010). For example, if measurements are made almost three months after the birth, the experimental group’s gains may have diminished in time.

Lastly, the depression levels of the parents in the experimental group were found to be significantly low. These findings show that antenatal interventions may have positive effects not only on women but also on men.
In addition, it could suggest that educational strategies are efficient in preventing PND. The fact that there are only a few studies on this matter in Turkey (Durat, 2003) and low-quality antenatal care services in different regions of Turkey shows that these instruction programs may be helpful for those who need support in this matter.

In conclusion, the orientation interviews performed with prospective mothers and fathers were found to significantly decrease the postnatal depression levels of the families. In future studies, the effects of various psychological counseling interventions, such as group therapy and group guidance, on the postnatal depression levels of families could be investigated.

Acknowledgments
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