The Effects of the New Baby on the Older Sibling

Aileye Yeni Katılan Bebeğin Bir Önceki Kardeş Üzerine Etkisi

Basri Furkan Dağcıoğlu¹

'Ankara Yıldırım Beyazıt University, Faculty of Medicine, Department of Family Medicine

Abstract

Objectives: The aim of this study is to investigate the effects of the newborn sibling and the other factors' contribution on previous sibling's behaviors.

Materials and Methods: In this cross-sectional study, we interviewed with 312 mothers who had children under the age of one, between February-July 2012, in the well-child outpatient clinics of Gazi University Faculty of Medicine, Department of Pediatrics. A structured questionnaire was conducted, interviewing face to face with the mothers. Scores of jealousy behaviors questionnaire could range from o-13. The cut-off score is accepted as 8 points and scores between o-7 points were evaluated as normal or acceptable, whereas the scores of 8 points or more was evaluated as pathological jealousy behaviors. The numerical values of dependent and independent variables asked in the questionnaire were shown as number and percentage. Chi-square test, Fisher's exact test and Likelihood test were used to examine the effect of independent variables on jealousy behavior. The Spearman Rho correlation coefficient was calculated to examine the correlation between the age of the focus child and the jealousy score. Variables determined to affect jealousy behavior were examined by logistic regression model (enter method). With the model established, it was tried to determine the risk factors that could affect the jealousy of the firstborn child. In the Enter method, the probability of entry into the logistic regression model at each step was 0.05 and the probability of being extracted from the model was 0.10. Confidence intervals of 95% were determined for the Odds Ratio (OR) value obtained by logistic regression. For statistical analysis, SPSS for Win. Ver. 15.0 (SPSS Inc., Chicago, ILL, USA) and for jealousy score calculation, tables and graphs MS-Excel 2016 programs were used. Significance level of p≤0.05 was accepted in statistical decisions.

Results: Mothers who participated in the study were found to have a median age of 30 (min: 20, max: 44, IQR: 6). Age of the previous children was 48 months (IQR: 24 months). The most common negative behaviors in the previous brothers were regression (77.74%), sleep changes (47.76%), violent behaviors (46.28%), changes in toilet habits (32%) and decrease in appetite (% 31). Children's jealousy behaviors decreased as age increased (Rho = -0.302; p <0.001). It was seen that the most important risk factors for jealousy were having a non-worker mother (OR: 0.19), decrease in time that is spent with father (OR: 4.43), and being at the risky age group (2-4 years) of the firstborn child (OR: 8.16).

Conclusion: A newly joined baby causes some negative behavior patterns on the previous sibling. Attitudes of parents to their children can affect this situation. It is important in terms of primary care medicine to question how the previous children of the families who have or have plans to have a new baby responded to this situation and how to control the child's jealousy behavior by resolving the concerns of the family.

Key words: Sibling jealousy, newborn baby and jealousy, sibling rivalry

Öz

Amaç: Çalışmamızın amacı, aileye yeni katılan bebeğin, bir önceki kardeş üzerindeki etkilerinin ve kardeş kıskançlığına etki eden faktörlerin belirlenmesine katkıda bulunabilmektir.

Materyal ve Metot: Kesitsel tipteki bu çalışmada, Gazi Üniversitesi Tıp Fakültesi Çocuk Hastalıkları Anabilim Dalı Sağlam Çocuk Polikliniği'ne Şubat 2012-Temmuz 2012 tarihleri arasında başvuran, son çocuğu 1 yaşını geçmemiş olan ve bir önceki çocuğu bir yaşından büyük olan 312 anne ile yüz yüze görüşülerek, yapılandırılmış bir anket uygulandı. Ankette yer alan ve kıskançlık davranışını yansıtan sorularda verilebilecek her bir cevap puanlanarak, toplam kıskançlık puanı belirlendi. Puanlama 0-13 arasında değişebilmekteydi. Değerlendirmede 0-7 puan alan çocuklar normal ya da kabul edilebilir tutuma sahip, 8 ve daha yüksek puan alan çocuklar ise patolojik kıskançlık gösteren olarak sınıflandırıldı. Kategorik değişkenler ile çocuğun kıskançlık durumu arasındaki ilişkiler Ki-kare testi ile araştırıldı. Kıskançlık puanı ile odak çocuğun yaşı arasındaki ilişkiyi belirleyebilmek amacı ile Spearman Rho korelasyon katsayısı hesaplandı. Puanlama sonuçları ile kıskançlık davranışına etki ettiği saptanan

değişkenler lojistik regresyon modeliyle analiz edildi. İstatistiksel analizler için SPSS for Win. Ver. 15.0 (SPSS Inc., Chicago, ILL, USA), kıskançlık puan hesabı, tablo ve grafikler için ise MS-Excel 2016 programları kullanıldı. İstatistiksel kararlarda anlamlılık düzeyi p≤0,05 olarak kabul edildi.

Bulgular: Çalışmaya katılan annelerin yaş ortancası 30 (min: 20, maks: 44; ÇAG: 6) olarak bulundu. Sondan bir önceki çocukların yaş ortancası 48 ay (ÇAG: 24 ay) idi. Yeni kardeşin doğumuyla, bir önceki kardeşte en sık görülen olumsuz davranışların regresyon (%77,74), uyku değişikliği (%47,76), şiddet davranışları (%46,28), tuvalet alışkanlıklarında değişiklikler (%32) ve iştahta azalma (%31) olduğu görüldü. Çocuklardaki kıskançlık davranışları yaş arttıkça azalmaktaydı (Rho=-0,302; p<0,001). Kıskançlık için en önemli risk faktörlerinin annenin çalışmıyor olması (OR: 0,19), baba ile geçirilen zamanın azalması (OR: 4,43) ve sondan bir önceki çocuğun 2-4 yaş aralığında olması (OR: 8,16) olduğu görüldü.

Sonuç: Aileye yeni katılan bebek, bir önceki kardeş üzerinde bazı olumsuz davranış kalıplarının ortaya çıkmasına yol açmaktadır. Anne ve babanın, çocukları ile ilgili tutumları, bu durumu etkileyebilmektedir. Yeni bebek sahibi olan ya da olmayı planlayan ailelerin bir önceki çocuklarının bu duruma nasıl tepki verdiğinin sorgulanması ve bu konuda ailelerin kaygılarının giderilerek, çocuktaki kıskançlık davranışının nasıl kontrol altında tutulabileceği hakkında yol gösterilmesi, birinci basamak hekimliği açısından önem arz etmektedir.

Anahtar kelimeler: Kardeş kıskançlığı, yeni bebek ve kıskançlık, kardeş rekabeti

Correspondence / Yazışma Adresi:

Dr. Basri Furkan Dağcıoğlu

Ankara Yildirim Beyazit University, Faculty of Medicine, Department of Family Medicine,

Bilkent / Ankara

e-mail: bfurkan@gmail.com

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Introduction

Although the first studies about the effect of siblings on child development were conducted around the beginning of the 20th century, sibling researches just recently has begun to evaluate many of the issues which concern families. Having a sibling has many direct and indirect contributions to development, such as cognitive, language and psychosocial aspects.

The quality of sibling relationship also plays an important role in children's adjustment. Sibling rivalry is linked to deviant and antisocial behavior, as well as to depression and other internalizing problems. Looking on the bright side, warm and positive relationships of siblings in childhood can help coping with adjustment problems.²

Jealousy and sibling rivalry are common conditions in society, which is as old as human history and often considered as normal.^{3,4} According to some experts, these feelings are among that a person first experiences and thus lies in the deepest places in the soul.⁵ There is almost nobody in the world who has a sibling and never had a problem with it.

Although the concepts of rivalry, conflict, jealousy and envy are usually confused and used instead of each other, these are distinct emotions.⁶⁻⁸ With a theoretical approach, it can be said that the jealous individual, beloved thing and rivalry exist in the corners of the triangle forming the concept of jealousy.⁹ The term "envy" nearly always refers to the two-person case in which a person (having similar or equivalent characteristics) lacks a desired thing. In the concept of rivalry, there is a competition with another (e.g.



new baby sibling) for the interest and love of the child's loved one. Conflict is a condition that depends entirely on interpersonal dynamics and can be influenced by jealousy, but it is a separate concept.⁹

When people have to share concepts such as interest, compassion, love or time that are presented to them with someone without their own will, jealousy rises. According to Freud, who studies the place of jealousy in human nature, jealousy consists of:^{3,10}

- 1) Grief, the pain of thinking of losing a loved one
- 2) The pain that we realize that we cannot get everything we want
- 3) Hostility for a successful rival
- 4) Self criticize for our loss, more or less

The most effective ones that cause feelings of sibling rivalry are emotions of anger, self-pity and sadness. It is argued that the infants have been interacting with their brothers after 6 months of age. The first primitive jealousy behaviors are beginning to be observed around 9-10 months. However, the complex feeling of jealousy begins to be felt in facial expressions after the individual is 18 months old. For the older sibling, this interaction starts when the new baby is born. Newly joined siblings often cause jealousy in the previous child. Surprisingly, sometimes this can even be observed in elderly people like grandparents.

The fear that, by the arrival of new baby, older sibling will not be loved as much as old times may start during the pregnancy of the mother. ¹⁴ Many families begin trying to familiarize their children for the idea of having a sibling before birth. It has also been mentioned in the genetic base of jealousy. Some experts have argued that this sensation first started around the age of two.¹⁵

Decrease in the time that spent for the previous child by the birth of the new sibling; can lead to the development of emotions in the child such as anger and disappointment, which seem to be against the baby, but actually against the parents. Among the most common presentations of regressive behaviors, hitting to baby, harming the objects, biting people can be seen as well as to avoid toileting for a long time, speaking like a baby, drinking from a baby's bottle, bedwetting, nail eating and finger sucking. ^{16,17}

When parents visit doctors, they usually do not talk about jealousy among their children. However, when the subject is brought into question by the doctor, it appears that they are willing to talk about some of the difficulties they encounter and to seek constructive advice from the doctor. This problem, which is often not addressed spontaneously, sometimes leaves families helpless, and even more importantly, it can leave permanent traces that will last a lifetime by affecting children's psychological development negatively.

Considering the principles of holistic and comprehensive approach of family medicine, it is very important to question such problems that families do not express by themselves. For this reason, knowing the prevalence of sibling jealousy, determining the factors that trigger this condition, and explaining how families can cope with this problem should be considered as an important component of primary health care.

In this study, it is aimed to make an assessment of sibling jealousy on a chosen population as well as to attract the attention of our colleagues to this subject which is underestimated in daily practice.

Materials and Methods

In this cross-sectional study, we interviewed with 312 mothers who had children under the age of one and had a second child older than one year, between February-July 2012, in the well-child outpatient clinics of Gazi University Faculty of Medicine, department of Pediatrics. Choosing the new babies under age 1 is preferred to minimize the memory factor on remembering the behaviors of previous (focused) child. A structured questionnaire was conducted, which is formed by searching relevant literature about the behaviors that may be associated with sibling jealousy, interviewing face to face with the mothers.

Variables

As independent variables, the sociodemographic and economic characteristics of the families (parents' ages, parents' educational status, mothers' working status, families' total monthly income, family type, children's ages, children's gender) and factors that could affect sibling jealousy (the time when the child was told, the person who gave the news of the new baby, where the firstborn child began to spend time after the new sibling, the change of the time that firstborn child spent with the parents) were asked in the questionnaire.

As dependent variables, the behaviors of the firstborn child that could be attributed to jealousy were asked to mothers and total jealousy behavior score was calculated by scoring each question. In this context, some questions were asked about changes in sleeping patterns, deterioration in eating habits, clinging behaviors, regressive behaviors such as speaking like a baby or desire for breastfeeding, avoiding going to toilet, urinary incontinence, violence to parents, to objects or to new sibling, refusing to help baby care, which can all be considered as jealousy associated behaviors.

Scoring

Scores of jealousy behaviors questionnaire, which is formed by scanning relevant data in the literature, could range from o-13. The distribution of the scores was examined and the cut-off score is accepted as 8 points, which was under 2 standard deviations (90th percentile) from maximum score, and scores between o-7 points were evaluated as normal or acceptable, whereas the scores of 8 points or more was evaluated as pathological jealousy behaviors.

Statistical analysis

The numerical values of dependent and independent variables asked in the questionnaire were shown as number and percentage. Chi-square test, Fisher's exact test and Likelihood test were used to examine the effect of independent variables on jealousy behavior. The Spearman Rho correlation coefficient was calculated to examine the correlation between the age of the focus child and the jealousy score. Variables determined to affect jealousy behavior were examined by logistic regression model (enter method). With the model established, it was tried to determine the risk factors that could affect the jealousy of the firstborn child. In the Enter method, the probability of entry into the logistic regression model at each step was 0.05 and the



probability of being extracted from the model was 0.10. Confidence intervals of 95% were determined for the Odds Ratio (OR) value obtained by logistic regression.

For statistical analysis, SPSS for Win. Ver. 15.0 (SPSS Inc., Chicago, ILL, USA) and for jealousy score calculation, tables and graphs MS-Excel 2016 programs were used. Significance level of p≤0.05 was accepted in statistical decisions.

Ethical considerations

For the study, ethical approval was obtained by the decision of the ethics Board of the non-interventional clinical researches Ethical Committee of Gazi University on 18.01.2012 with the decision number of 013.

Results

The study was conducted with 312 mothers who applied to Social Pediatrics Policlinic of Gazi University Medical Faculty and agreed to participate in the study. The ages of the participated mothers were between 20-44 years and median age was 30 year (IQR=6). Of the individuals participating in the study, 131 (41.98%) were young mothers, while 178 (57.05%) were middle-aged mothers. The median age of firstborn children was found to be 48 (IQR = 24) months. In Table 1, some descriptive characteristics about the families participating in the study, and in Table 2, descriptive characteristics about the factors that could affect the sibling jealousy were given.

The distribution of the answers given to the questions about the behavior that may be related to the jealousy of firstborn children is given in Table 3.

Statistical analyzes showing the relationship of the questioned variables with the jealousy status of the firstborn children are given in Table 4.

A significant negative correlation was found between the age of the firstborn child and the total jealousy score, despite the correlation was low (Rho=-0.302; p<0.001). It was seen that as the child's age increased, the jealousy score decreased. Figure 1 shows the distribution of jealousy score with the age of firstborn children.

Logistic regression analysis was performed for variables that influenced jealousy. The pathological jealousy behavior group was selected as dependent variable, maternal working status, time spent with father, and age group of firstborn children as independent variables. Logistic regression model was completed with 306 subjects (98.1%) as 6 deficiencies were found in the data. The logistic regression model established was statistically significant (Nagelkerke $R^2 = 0.190$) in order to determine the significant factors on the firstborn child's pathological jealousy score.

It is found that, having a non-worker mother (OR:0.19), decrease of time spent with father (OR:4.43) and being at the risky age group of the firstborn child (OR=8.16) increased the risk of having pathological attitude of the firstborn child.

The risk effects (OR) resulting from the independent variables in the model resulting from the logistic regression and the confidence intervals of this effect are shown in Table 5.

 $\textbf{Table 1.} \ Some \ descriptive \ characteristics \ about \ the \ families \ included \ in \ the \ study$

The age of the firstborn	n=310		
24 months or younger	24 (7.74%)		
25-59 months	175 (56.45%)		
6o-83 months	94 (30.32%)		
84 months or older	17 (5.48%)		
Firstborn child's gender	n=309		
Girl	155 (50.16%)		
Boy	154 (49.84%)		
New baby's gender	n=280		
Girl	142 (50.71%)		
Boy	138 (49.29%)		
Educational status of mothers	n=312		
None-primary school	62 (19.87%)		
Middle school-high school	128 (41.03%)		
University-post doc.	122 (39.10%)		
Mothers 'work status	n=310		
Working	70 (22.58%)		
Not working or off duty	240 (77.42%)		
Family income	n=303		
Less than 1500 Å	67 (22.11%)		
1500-3500	161 (53.14%)		
3501 ½ and above	75 (24.75%)		
Family type	n=312		
Core	229 (73.40%)		
Extended	83 (26.60%)		
The place that firstborn spends time	n=309		
Home	187 (60.51%)		
Nursery	109 (35.28%)		
With relatives	13 (%4.21)		

Table 2. Descriptive characteristics about the factors that could affect the sibling jealousy

When was the new sibling told	n=312	
Before pregnancy	20 (6.41%)	
During pregnancy	279 (89.42%)	
After birth	13 (4.16%)	
Who gave the news of new sibling	n=292	
Mother	177 (60.61%)	
Father	7 (2.39%)	
Parents together	108 (36.99%)	
First reaction to sibling news	n=302	
Rejoicing	192 (63.57%)	
Anger/Sorrow	24 (7.95%)	
Surprised/Non-reacting	86 (28.48%)	
The time that firstborn spent with mother	n=309	
Increased	28 (9.06%)	
Decreased	198 (64.07%)	
Has not changed	83 (26.86%)	
The time that firstborn spent with father	n=310	
Increased	112 (36.12%)	
Decreased	28 (9.03%)	
Has not changed	170 (54.84%)	

Discussion

Interesting results have been achieved in this study, in which we are investigating the effect of the newborn baby on the behavior of the older sibling.

It was seen that most of the families gave the news of the new sibling that will join the family to the previous child during the pregnancy and especially in the first trimester. Many mothers shared this with their children shortly after learning that they were pregnant. In some studies, it is asserted that familiarization of the older sibling to this situation before the birth of the new baby makes a positive contribution to the behavior of the child. One of the common practices in our country is that after the birth of the new baby, parents give a gift to older child and tell him that the baby has brought it to him. However, such approaches are not recommended by some experts, for it may cause children feel deceived.

Table 3. The distribution of the answers given to the questions about the behavior that may be related to the jealousy of firstborn children

Sleeping pattern of the firstborn after new baby	n = 312
Has not changed	163 (52.24)
Negatively affected	149 (47.76%)
Eating appetite of the firstborn after new baby	n = 310
Increased	18 (5.81%)
Decreased	97 (31.29%)
Has not changed	195 (62.90%)
Regressive behaviors of the firstborn after new baby	n = 310
Regression present	241 (77.74%)
Regression absent	69 (22.26%)
Toilet behaviors of the firstborn after new baby	n = 309
Negatively changed	100 (32.36%)
Has not changed	209 (67.64%)
Violence behaviors of the firstborn after new baby	n = 309 *
None	166 (53.72%)
To parents	83 (26.86%)
To sibling	128 (41.42%)
To objects	55 (17.80%)
Firstborn child's willingness to help baby care	n = 308
Yes	235 (76.30%)
No	22 (7.14%)
Sometimes	51 (16.56%)

^{*}More than one answers were possible

The birth of a new baby often causes less or more changes in the previous child. Only 25 (8.01%) of the children who did not show any jealousy behavior were found in our study. On the other hand, the envy of the new baby by the older sibling is often a concern for the family. However, only 9.90% (n = 31) of children showed pathologically negative behaviors towards new sibling and behaviors of more than 90% of the children could be considered as normal. According to a study in the United States, the

concerns of parents about the jealousy of the previous child against the new baby were found to be greater than the behavior that could be related to jealousy in the child.²⁰ This may indicate that families are worrying more than necessary on the subject of sibling jealousy.

Table 4. Relationship of the questioned variables with the jealousy status of the firstborn children

		Total jealousy score			
		Normal or acceptable attitude (o-7 points) n (%)	Pathological attitude (8 points or over) n (%)	χ²	p
Mother's e	ducational statu	ıs	•	•	
Compulsory below	education or	85 (90.43)	9 (9.57)		
High schoo	1	86 (89.58)	10 (10.42)	0.040	0.980
University of	or post-doc	110 (90.16)	12 (9.84)		
Father's ed	lucational statu	S		·	
Compulsory below	education or	51 (92.73)	4 (7.27)		
High schoo	1	70 (85.37)	12 (14.63)	2.106 0.349	
University of	or post-doc	111 (90.24)	12 (9.76)		
Mother's w	orking status			·	
Working		68 (97.14)	2 (2.86)		
Not workin	g or off duty	211 (87.92)	29 (12.08)	5.126	0.024
Family inc	ome			·	
Less than 15	500 ₺	63 (94.03)	4 (5.97)		
1500-3500		141 (87.58)	20 (12.42)	2.232	0.328
3501 £ and a	bove	68 (90.67)	7 (9.33)		
Family typ	e				
Core		209 (91.27)	20 (8.73)	1200	0.220
Extended		72 (86.75)	11 (13.25)	1.390	0.238
Gender					
Firstborn child's gender	New baby's gender				
Girl	Girl	67 (87.01)	10 (12.99)	0.051	0.816
	Boy	53 (88.33)	7 (11.67)	0.054	0.010
Boy	Girl	59 (90.77)	6 (9.23)		0.958
БОУ	Boy	71 (91.03)	7 (8.97)	0.003	

Firstborn's gender				
Girl	138 (89.03)	17 (10.97)		0.583
Boy	140 (90.91)	14 (9.09)	0.301	
Total child number of the	family		•	
2	238 (90.49)	25 (9.51)	2216	0.556
3 or more	43 (87.76)	6 (12.24)	0.346	
When was the new sibling	told			
Before pregnancy	20 (100.00)	o (o.oo)		
During pregnancy	247 (88.85)	31 (11.15)	7.350	0.025 *
After birth	13 (100.00)	0 (0.00)		
First reaction to sibling ne	ews			
Rejoicing	177 (92.19)	15 (7.81)	3.592	0.166
Surprised/Non-reacting	74 (86.05)	12 (13.95)		
Anger/Sorrow	20 (83.33)	4 (16.67)		
The place that firstborn sp	ends time			
Home	164 (85.42)	28 (14.58)		0.139
With relatives	11 (84.62)	2 (15.38)	3.953	
Nursery	103 (94.50)	6 (5.50)		
The time that firstborn sp	ent with mother			
Increased or has not changed	104 (92.04)	9 (7.96)	0.844	0.358
Decreased	174 (88.78)	22 (11.22)		
The time that firstborn sp	ent with father			
Increased or has not changed	257 (91.46)	24 (8.54)	p=0.016 (Fischer's exact test)	
Decreased	22 (75.86)	7 (24.14)		
Firstborn child's age (two	groups)			
Under 2 years or over 4 years	120 (97.56)	3 (2.44)	12.95	<0.00
2 – 4 years	159 (85.03)	28 (14.97)	2	1
		_		

^{*}Clinically not significant, due to lack of enough data in some boxes

The most common negative attitude was regressive behaviors with a rate of 77.7%. Among them, there were behaviors like demanding help from mother while eating, demanding breastfeeding, speaking like a baby and clinging to mother. According to Volling, the regression signs may depend on whether a skill is newly acquired or firmly established, and most of the tasks of self-help in toilet, weaning and dressing depend on the complexity of the child's maturation process.⁴ Therefore, encouraging the child to gain independence may be an effective way to prepare firstborns and parents for the arrival of a new baby.⁴

Table 5. Logistic regression model

	n	Odds	95% C.I. for OR	
		Ratio (OR)	Lower	Upper
Having a non-worker mother	0.027	0.186	0.042	0.829
Decrease of time spent with father	0.005	4.427	1.553	12.620
Being at the risky age group (2-4 years) of the firstborn child	0.001	8.160	2.357	28.251

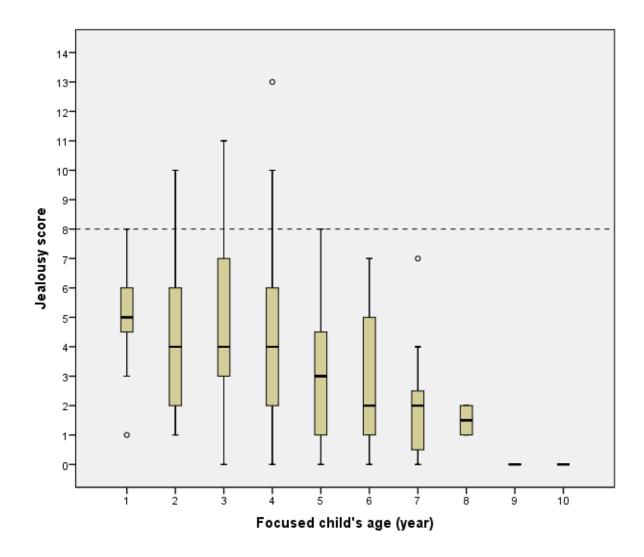


Figure 1. The distribution of jealousy score with the age of firstborn children.

In our study, with the arrival of a new baby, it is seen that the time that the father usually spent with the previous children usually increased. This may be an attitude towards closing the interest deficiency of the mother, who now has to deal with the new baby. It has also been observed that the decrease in the time spent by the father with the child, increases the risk of the child showing jealousy attitudes. It has been reported that the positive relationship between the parents and the relationship based

on the love and compassion helps the child to cope with negative feelings significantly.²¹ In this respect, it can be said that parents who have a new baby will benefit from having more quality time with their previous children.

One of the remarkable findings in our study is that sibling jealousy is more common in children of mothers who do not work and spend time at home. This interesting conclusion can be interpreted as the mother, who is a popular and competing entity in the rivalry triad is out all day, and this may decrease the jealousy instinct. Thus, the elements of jealousy is defined by Kolak and Volling, as the jealous individual, the thing that is loved and the rivalry. On the other hand, considering that the interviews are made with mothers, it may also have been caused by the fact that the mothers who spend more time at home could have watched more jealousy behavior. This distinction was not possible due to the design of our study.

A negative correlation between the age of the firstborn child and the jealousy score was found, and further analysis showed that children aged 2-4 years (24-59 months) were significantly more jealous than children aged 5 years (60 months) and older. This result supports the results of many other work on the subject,²² despite some studies advocating that jealousy may increase in later ages.²³ Because, according to experts, people are more likely to envy others who are similar to themselves in attributes such as gender, age, experience, and background.8 What is more, according to Bowlby's attachment theory, the early bond between infants and their parents is critical for the infant's survival. However, with age, children depend less on parent's physical proximity and more on a sense of confidence that they will be accessible in times of need.²⁴ From this result, it can be said that parents and physicians should be more careful about possible jealous behaviors when there is a little age difference between the two siblings. In some studies it has been argued that the gender factor may also have an effect on jealous behaviors.^{25,26} There are various assertions in the literature that siblings with the same sex tend to be more jealous each other, as girls show more jealousy.²⁷⁻³⁰ However, in our detailed analysis of our study, it was seen that neither the gender of the newborn baby and nor the firstborn, had any effect on jealous behavior.

In several studies, it was defined that, there are three main sibling relationship patterns: a conflictual cluster (low on warmth, high on conflict), an affect-intense cluster (above average on warmth and conflict), and a harmonious cluster (high on warmth, low on conflict).³¹ These relational clusters may help us to comprehend the nature of sibling dynamics.

A recent research suggests that, some young people with obsessive compulsive disorder (OCD), can present with an acute fear of a sibling as a ritual of OCD.³² In these cases, it can easily be misdiagnosed as a sibling rivalry which leads to a delay on appropriate treatment.

To our knowledge, there is not any common used inventory in Turkish language to measure sibling jealousy in early childhood. Developing an inventory from the questions like in our questionnaire, with its validity and reliability studies, may contribute to literature.

Approximately 80% of children in the United States have at least one sibling, which indicates that the birth of a baby sibling is a normative ecological transition for most children.⁴ For recent decades now, sibling relationships and their impact on family life

and individual development have attracted the interest of scientists, resulting in a huge evidence-based literature about sibling relationships.² Jealousy, which is unlike basic feelings such as anger, fear, sadness and joy, defined as a complex social feeling by Volling, has become a topic that has been increasingly addressed in the last century to reach a society with more trouble-free and conflict-free personalities.^{21,33} Further researches about this subject, especially from the perspective of searching a relationship between the jealousy of adulthood, would reveal the mysteries of sibling interactions which is already understood to be substantial. A pathologic jealousy of siblings may be an early indicator of a narcissistic personality, which needs to be investigated as well. A family physician who can sufficiently understand the dynamics of sibling rivalry will be able to help parents for the manifestation of this developmental period on the child.³⁴ The explanation of the appropriate parenting approach, which starts before the child's birth and continues in the process of cohabitation with the child, should be accepted among the main purposes of family medicine.

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