

THE FIRST OFFICIAL TWIN BIRTH RATES IN TURKEY DURING 2004-2009

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ABSTRACT

Twin birth rates are increasing due to similar dimensional factors both in Turkey and in the world. Even though this increasing numbers, there has been no official data about twin birth rates thitherto in Turkey. The data has been taken from Turkish Ministry of the Interior General Directorate of Civil Registration and Nationalityin 2015. This study tried to analyze twinning rates during 2004-2009 in Turkey. The children,who were born between 2004 and 2009, are at the concrete operation period of Jean Piaget. As a result of the study, 109.138 twin students are registered at Piaget's concrete operational period in Turkey.

Keywords: twins, twin studies, birth rate, Turkey

1. Introduction

Twins are born together at the same time sharing the same womb as a fetus. They can be monozygotic or dizygotic according to fertilization of the egg. Twin birth is the most common birth among multiple children and their numbers are increasing day by day because of dimensional reasons around the world. This increase made many countries analyze and make research about twin birth rates. Even though the numbers of twin birth are increasing in Turkey, there has been no official twin birth rate data in Turkeythitherto. Thefirst official twin birth rate data¹ will be fruitful to do research about twin studies in Turkey and comparative studies with world. However, there has been no official data aboutmonozygotic and dizygotic twin rates in Turkey.

French psychologist, Jean Piaget mentions that 6-11/ 7-12 year-old children are at concrete operational period and they learn and understand concrete things. Twins who are at this period are between at the 1st and 6th grades in Turkey. As a result, it has been tried to cite the number of twins who are at Piaget's concrete operational period, whowere born between 2004 and 2009 in Turkey². The official data will be fruitful for the ministry of education in Turkey to develop some laws and regulations for twins.

2. Types of Twins

Twins can occur as monozygotic or dizygotic. Monozygotic twins are also called identical twins. They occur from one egg splitting into two eggs that conclude with two fetuses. Monozygotic twins look like each other very much. They are always same sex: girl-girl or boy-boy. Monozygotic twins have same genetic code (they have same DNA).

Dizygotic twins are also called as fraternal twins. They are occurred by two eggs that fertilized by two different sperms. Dizygotic twins look like each other like a brother or sister. Their genders can be same or different: girl-boy, boy-boy, and girl-girl. They share their DNA as %50.

Monozygotic twin birth rate is rare among twin births. Segal (Fiegl, National Geographic Magazine, 2012) mentions that

“natural twinning rate is nearly 1 in 80 births in Western countries and monozygotic twins are only a 3rd of those”.

Even though we have gained the twinning birth rate, it has been no official data about monozygotic and dizygotic twin rates. As we did small scale research, our questionnaire results embedded on www.siradisianelik.com show that monozygotic twins are rare than dizygotic twins (Şinik Ö. P., 2014). In the questionnaire, 88 (23%) monozygotic twins and 295 (77%) dizygotic twins were cited.

¹ It was taken from Turkish Ministry of the Interior General Directorate of Civil Registration and Nationality

²2004 -2009 years corresponding to 6-12 year-old twin children who are at the concrete operational period in 2015.

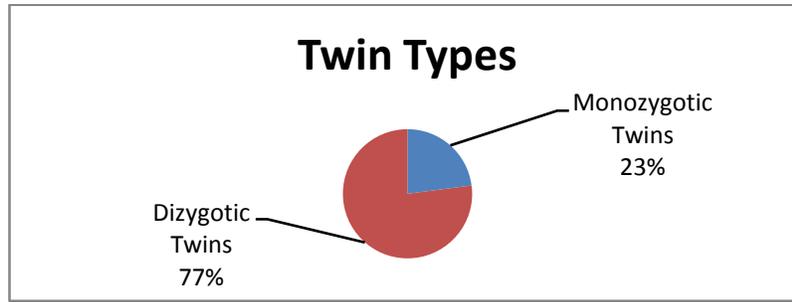


Figure 1: Twin Types

Sources: Google Form Questionnaire Results on www.siradisiannelik.com between 2011 and 2014.

2.1 The Reasons of Rising Twin Birth Rates

According to Hellin’s law (Hellin, Die Ursache der Multiparität der unipare Tiere überhaupt und der Zwillingschwangerschaft beim Menschen insbesondere, 1895), twin births are seen as 1 of 80 births: 1:80. Segal (Fiegl, National Geographic Magazine, 2012) mentions that this rate can be true for Western nations. However, we do not know this number is true or not for Turkey. After our study, the cooperative demographic studies can be done and result can be compared with Western countries.

Having twin children can be seen because of some reasons:

If a woman has twin genes as genetically, such as Utah MZ twin gave birth for the second time (Nico).

If a woman is taller and heavier (Segal, 2011),

If a woman lives in a hot city or country (Erol),

If a woman delays marriage age and has fertility treatment (Sandbank) ,

If a woman continues to give a birth that has a chance of having twin children (Smits and Monden).

3. Jean Piaget’s Concrete Operational Period

French psychologist Jean Piaget explains children’s cognitive development in four steps (Piaget, 2004):

Age	Stage	Explanation
Birth- 18 th	Sensory-motor	pre-verbal stage until 18 th month
18 th -6/7	Preoperational	beginning of languages, symbolic function, thought and representation
6/7- 11/12	Concrete Operational	starting age to primary school
11/12+	Formal Operational	formal or hypothetic deductive operation

Table 1: Piaget’s Cognitive Development Stages

Sensory motor start from birth and continue until 18th month old. This process includes preverbal stage. After 18th month, children get into preoperational period that language, symbolic functions, thought and presentation

were seen until children start a primary school at the age of 6 or 7. After school life, children begin to learn concrete things. They believe and understand only concrete things until they reach 11 or 12 years old. The final development stage starts with 11 or 12 years, during this period, children begin to learn and understand formal things. They develop and shape their thoughts during this period.

3.1 Twin Birth Rate at Concrete Operational Period in Turkey

As it was mentioned above, concrete operational period prepares children learn concrete things. This period also gives children to be social, work in a group, try new things and do experiment, etc. (Piaget, 2004). Children, at this period in Turkey, are between 1st grade and 6th grades of primary schools (1st and 4th grades) and secondary school (5th and 6th grades).

At the age of six, children start primary school in Turkey. At the 1st grade, children begin to learn how to write and read the alphabet during the first term of first grade. Second term is generally easier than the first term, because they know how to read and write. They also have Turkish, math, music, visual art, social life lessons and physical education (PE)(Ministry). At 1st grade of primary schools in Turkey in 2015, 19,649 twins, who were born in 2009, were seen.

At 2nd grade, it is generally the repetition of the 1st grade. Children develop their reading and writing skills. They also begin to learn English as a foreign language (EFL). 20,059 twins, who were born in 2008, were at the second grade of primary schools in 2015 in Turkey.

At 3rd third grade, children develop their knowledge and the lessons are similar with the 2nd grade. Additionally, children take science lesson. 18,479 twins, who were born in 2007, were seen during 2015 as 3rd grade students in Turkey.

The last grade of primary school is the 4th grade. Children take social knowledge, science, traffic, human rights, religion, physical education (PE), English (EFL) lessons at 4th grade. 17,877 twins, who were born in 2006, were at the 4th grades of primary schools in Turkey.

In Turkey, the education system consists of 4+4+4. The first 4 represents primary school. The second 4 represents the secondary school and the last 4 represents the high school. The first 4 consists of 1st, 2nd, 3rd, 4th grades. Second 4 consists of 5th, 6th, 7th, 8th grades. Children after 7th grade are at the formal period of Piaget. We analyzed twins who are at only concrete operational period. The last 4 represents the high school.

After the first 4 is finished, children choose secondary school for themselves. Secondary schools can be verified, such as: private, state, religious high schools (Imam Hatip) or single-sex schools.

5th grade is a kind of repetition of 4th grade and children's behaviors are generally childish. They take similar lessons (not traffic and human rights) as it was at 4th grade. 16,582 twins, who were born in 2005, attended as a 5th grade student in Turkey, in 2015.

However, when children are at 6th grade, they are more like a teenager and behavior changes can be recognized easily. They have similar lessons as it was in 5th grade. At 6th grade, children prepare for TEOG (Temel Öğretimden Orta Öğretime Geçiş Sınav Sistemi/ The Transition Exam from Elementary Education to

Higher Education) exam that is a kind of entrance exam for high schools. 16,492 twins, who were born in 2004, were registered as 6th grade students in 2015, in Turkey. Twin children who are at concrete operational period between 2004 and 2009 are shown in the table:

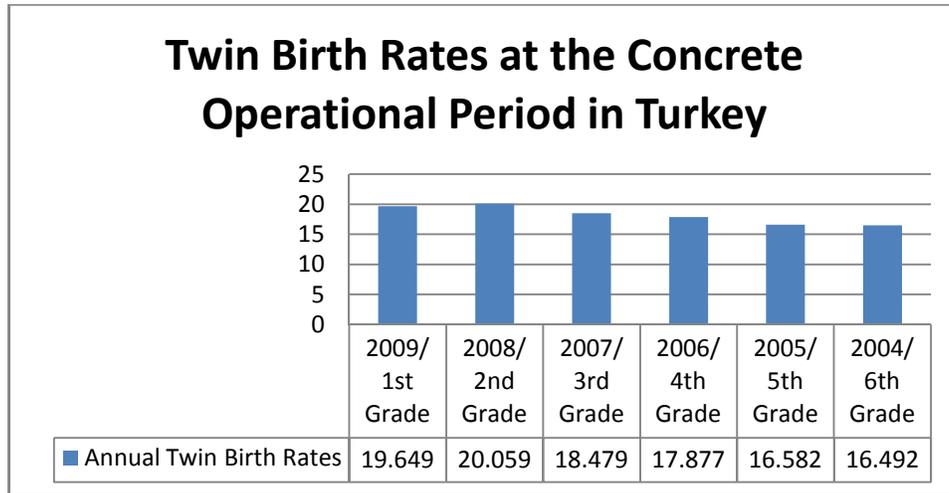


Table 2: Twin Birth Rates at the Concrete Operational Period in Turkey: 2004-2009

Sources: Turkish Ministry of the Interior General Directorate of Civil Registration and Nationality(Şinik Ö. P., 2015)

Note: The figure shows live twin births.

When the population of twin births compared, twin birth rates increased regularly during 2004 and 2009 and had peak in 2008, citing: 20,059 than began to decrease in 2009, citing: 19,649.

4. Results and Recommendations

Twins are one of the disadvantageous people in societies. Even though there are some regulations and laws for these disadvantageous individuals however no for twins and multiple children in most countries and in Turkey. At the concrete operational period: between the 1st and 6th grades, totally, 109,138 twins were registered in Turkey. Even though the number is high amount of, there has been no regulation and law about twin children’s education lives. Especially, when twins begin to primary school, educational problems start, too. Whether they should be in same school or not, or same class or not, teacher choice, their individual differences, paces, performances are very essential problems for families of twins.

109,138 twins between at 1st and 6th grades in Turkey show us that multiple children are considerable amount of in Turkey. As a result, Turkish National Education Ministry should take some precautions, do some regulations and introduce some laws for twins and multiple children. Thus, their families and teachers will be informed about twins, their psychology and performances. As a result, twins as an individual will be more successful at their education lives and develop their individuality.

References

- Bentley, P. R. (2011). *Martyr for Mental Health: John R. Seeley and the Forest Hill Village Project, 1948 – 1956*. Toronto: Unpublished Dissertation. Retrieved February 22, 2016, from https://tspace.library.utoronto.ca/bitstream/1807/43489/1/Bentley_Paul_201311_EdD_thesis.pdf
- Erol, O. (2006). *İkiz Gebeliklerde Koryonisitenin Perinatal ve Neonatal Sonuçlara Etkisi*. Unpublished Dissertation. T.C Sağlık Bakanlığı Bakırköy Kadın Doğum Ve Çocuk Hastalıkları Eğitim ve Araştırma Hastanesi, Istanbul, Turkey.
- Fiegl, A. (2012, January). Retrieved August 20, 2016, from National Geographic Magazine: <http://ngm.nationalgeographic.com/2012/01/twins/segal-interview>
- Hellin, D. (1895). *Die Ursache der Multiparität der unipare Tiere überhaupt und der Zwillingschwangerschaft beim Menschen insbesondere* (Hellin, D. (1895). *Die Ursache der Multiparität der unipare Tiere überhaupt und der Zwillingschwangerschaft beim Menschen insbesondere* ed.). München: Seitz und Schauer.
- Ministry, T. N. (n.d.). *İlköğretim Kurumları (İlkokul ve Ortaokul) Haftalık Ders Çizelgesi*. Retrieved August 21, 2016, from Milli Eğitim Bakanlığı: <http://ikgm.meb.gov.tr/upload/TTK%C3%A7izelge.pdf>
- Nico, L. (2016). *KUTV.com Salt Lake City, UT*. Retrieved February 27, 2016, from <http://kutv.com/news/local/identical-twin-moms-give-birth-to-2-sets-of-twins-again>
- Piaget, J. (2004). *Çocukta Zihinsel Gelişim*. İstanbul: Cem Yayınevi.
- Sandbank, A. C. (1999). *Twins and Triplet Psychology*. London: Routledge.
- Segal, N. L. (2011). *Someone Else's Twin*. New York: Prometheus Books.
- Smits, J., & Monden, C. (2011). Twinning across the Developing World. *PLOS ONE*, VI(9), 1-5.
- Şinik, Ö. P. (2014). *İkizler Anketi*. Retrieved December 20, 2015, from https://docs.google.com/forms/d/1HQAEcnJdKmyUih8xuH9H4pwQJSiDyc4xdJqnQa_6AMk/viewform
- Şinik, Ö. P. (2015, October 20). *Official Twin Birth Rate*. Ankara: Turkish Ministry of the Interior General Directorate of Civil Registration and Nationality.