The impact of short separations at home and school on twin preschoolers
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Summary
Scientific studies have consistently reported that there is little or no cooperation among twins and their parents and teachers on their decision to be separated or not at school. Research data on twin separation in home setting is even rarer. The present study examined parental preference for twin separation in home and school settings and twins’ adjustment on separation in a sample of 12 pairs of monozygotic (MZ) and 58 pairs of dizygotic (DZ) twin preschoolers. Results showed that: a) zygosity does not affect parental preference for twin classroom separation, b) parents believe that twin separation promotes their individuality and independence and c) twins who have little or no experience of separation before starting nursery school are not upset when they are shortly separated at home and school setting.

Introduction
Koch (1966) conducted the first study investigating the effects of separation on twins’ adjustment. It was found that separated twins showed more advanced speech and greater IQ differences within twin pairs than twins placed together. Moreover, four national surveys have been conducted with teachers and parents on twins’ separation. In the Australian survey 10% of teachers reported that it was school policy to separate twins without exception, 30% of parents reported that they were not consulted by teachers about whether or not to place twins in separate classes and 40% of parents felt they were inadequately consulted (Gleeson et. al., 1990). The American survey showed that almost half of the parents who were aware of a mandatory policy on separating twins at school, did not endorse this practice (Segal & Russell, 1992). The UK survey found that only 1% of schools surveyed had official written policies about the education and management of multiple birth children, but despite this, 7% of schools reported that they always separated twins and 23% reported that they always kept them together (Preedy, 2001). Finally, the Dutch survey found that of the 1006 twin pairs who were in the same classroom at the age of 5, 77% had been together for the entire school period or at least most of it, 16% had been separated, and 7% had been partly separated and partly together by the age of 12. Of the 500 twin pairs who were in separate classes, 64% had been separated for most of their schooling, 26% had been together and 9% had been partly separated and partly together (Leeuwen et al., 2005).
Classroom separation is based on the notion that the close social relationship between twins may be damaging for their development (Tully et al., 2004) and that separation may promote their individuality and independence (Koch, 1966). This view is supported by the 92% of teachers in the Australian survey (Gleeson et al., 1990) and by the Nederlandse Vereniging voor Ouders van Meerlingen (NVOM) (see Geluk & Hol, 2001, in Leeuwen et al., 2005). On the other hand, the findings of the American and the UK survey support the rationale that separation in the early school years may cause distress and could lead to emotional difficulties for some children (Preedy, 2001; Segal & Russell, 1992). At present, theories about the potential beneficial and harmful effects of classroom separation are supported by poor research evidence (Leeuwen et al., 2005; Tully et al., 2004).

As far as we know, the UK survey is the only one that studied twin separation in other than school setting. The UK survey found that it was difficult for most parents to arrange separate outings or experiences for twins before starting school (Preedy, 1999). Separation at home is based on the notion that parents can cope better with one child than with two and each twin has his/her own space and experiences that differentiate him/her from the co-twin.

Studies on the effects of twin separation at school showed that, when compared with non-separated pairs, twins who were separated early had significantly more internalizing problems and lower reading scores. MZ suffered more from separation than DZ twins (Tully et al., 2004). Moreover, the decision to separate twins when they start school is based in part on the existing behavioral problems of the twins and, in the long run, separation has not been found to affect behavior or academic achievement of both MZ and DZ twins (Leeuwen et al., 2005).

**Methods**

**Sample**

The sample consisted of 6 pairs of MZ boys, 6 pairs of MZ girls, 14 pairs of DZ boys, 13 pairs of DZ girls and 21 pairs of different sex DZ twins. Their mean age was 4.52 years old (SD=1.424) and their mean gestational age was 35.26 weeks (SD=2.011).

**Procedure**

Responses were collected by parents of 120 twins who attend nursery schools in Crete (by 31 mothers, 2 fathers, 15 both parents). For the purpose of this study the questionnaire constructed by Preedy for the UK national twin survey in 1994 was adopted. It is a 30-item structured questionnaire,
adapted in Greek. The questionnaire consists of two parts. The first part included questions that aimed to collect demographic. The second part entailed questions referring to several issues on the social and emotional development of twins and the educational needs and problems twin preschoolers might meet during the course of their studies.

Results
A Parametric Chi-square test was employed to explore the relation between zygosity and parental preferences for classroom separation in nursery school. A Chi-Square analysis revealed that zygosity does not affect parental preference for classroom separation and other parental preference for twin schooling \( \chi^2 =1.311, \text{df}=1, \text{Asump. Sig. (2-sided)}= 0.252 \). A Chi-square analysis and a Monte Carlo simulation were used to explore if parental views for twins’ individualization affect their preference for twin separation. It was found that parents believe that twin separation promotes individuality \( \chi^2 =16.553, \text{df}=2, \text{Asymp. Sig. (2-sided)}=0.0005, \text{MC Sig. (2-sided)}= 0.0005 \). A Chi-square analysis and a Monte Carlo simulation were used to explore if twins not separated before nursery school are emotionally affected by their short separations in nursery school. Our results indicated that twins who have little or no experience of separation before the start of nursery school are not upset when shortly separated at home and school setting [Firstborn: \( \chi^2 = 19.114, \text{df}=9, \text{Asump. Sig. (2-sided)}= 0.024, \text{MC Sig. (2-sided)}=0.015 \), Second born: \( \chi^2 = 20.861, \text{df}=12, \text{Asump. Sig. (2-sided)}= 0.052, \text{MC Sig. (2-sided)}= 0.040 \].

Conclusions
The findings of our study suggest that zygosity does not affect parental preference for twin classroom separation. Parents do not think that being a twin and especially a MZ twin is an obligation for each twin to be always with his/her co-twin and live a common life. It should be noted that we talk about preference because schools in Greece have no official policy about the education and management of multiple birth children. Moreover, parents believe that twin separation promotes their individuality and independence. It is quite interesting to mention that parents prefer twins to be separated but in practice they act differently. The majority does not separate them in nursery school (77.8% together, 22.2% apart) and prefers not to separate them in primary, high or senior high school. This might be because it is difficult to meet the educational needs of two same aged children with different teachers, classmates and homework especially when parents are not adequately informed about the twin situation. Finally, twins who have little or no experience of separation before starting the nursery school are not upset when they are shortly separated later in home and school setting. This might means that twins really need to have the experience of short
separations to see how things work out for their twinning and face the world as individuals. Building new friendships in a new school environment gives them the chance to widen their social world and share experiences with other peers too.

The findings of the present study are significant as they show Greek parents’ preference on separation in home and school settings which may affect twin rearing strategies. As far as we know, it is the first study on twin preschoolers in a Greek population. The main limitation of the present study is that the findings arise from parents’ reports and not from children’s own beliefs. Moreover, behavior in home and school situation, rated by the teachers, was not studied. Finally, the sample of the study was small in comparison to the large samples of previous national surveys, that constrain us from generalizing the results in the Greek twin population. A Greek national survey on educational issues for twins is of need. Another interesting issue for further research is the effect of separation on identity formation. Longitudinal naturalistic studies on twin preschoolers’ attitudes for separate and common activities in home and school settings would therefore be worthwhile.

References