

T Environment

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Newsletter Issue 6

June 2005

Phase 10 so far

Since September 2004, the Teds-Environment research workers have seen ??% of the study's families. A total of ??? more families will be seen by the end of the year.

The interviews have gone extremely well, with many of the children showing how much they enjoyed themselves by painting and drawing the research workers thank you cards and pretty pictures with their art packs. Some of them are displayed in the children's newsletter.

In particular, the children have enjoyed playing the faces game and the sketchy game on the research worker's laptop computers.

The twins who have taken

part so far have felt very special because they are twins who can take part in research.

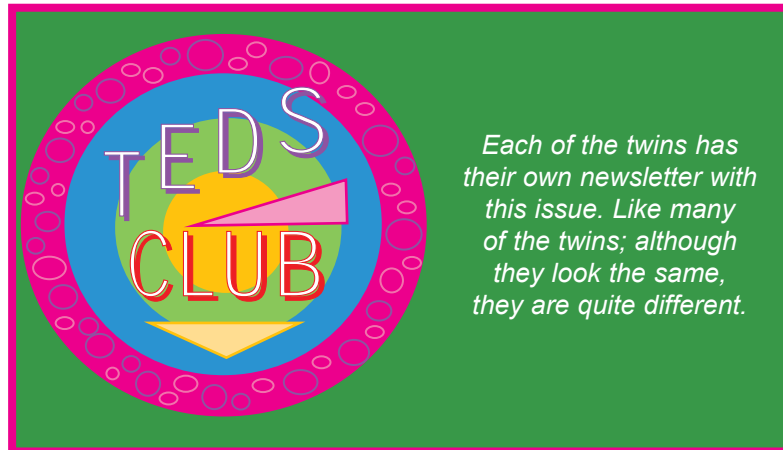
Many mums have also enjoyed their interviews. Some are happy to be able to talk about their problems to others and most of the mums have loved talking about their own

children.

Like their children, most mums have enjoyed being a part of something. This has helped them to feel slightly less isolated, which can often happen when you're a parent, and particularly a parent of twins!

What's inside?

Check out how valuable you are to the study on page 3.



Why do scientists study twins?

Many Teds-environment families have asked us why scientists like to study twins. Great question! Scientists become excited about studying twins for different reasons. Here are the top 4:

- Doctors who take care of multiple-birth mums and babies carry out medical studies of twins to find out what difficulties doctors and nurses should look out for when twins are conceived, during pregnancy, during delivery, and in the neonatal care unit at hospital. How can doctors best keep twins and their mums healthy?

- Clinical psychologists study twins to understand the special meaning of being a

twin, from the twin's point of view. They ask questions such as: Do twins benefit from being separated in school or not? Do identical twins feel closer to each other than fraternal twins? Do infant twins lag behind other infants in language development, and when do they catch up? What is special for parents who are bringing up twins?

- Geneticists study twins to find out if human diseases and behaviours have genetic causes. These scientists measure twins for many things, such as reading ability, behaviour problems, athletic ability, personality, tooth growth, blood pressure, diabetes, or Alzheimers disease. Then, if the identical (MZ) twins in a study are more alike than the fraternal (DZ)

twins, the geneticists know that genes are at work.

- Environmental psychologists study twins to find out how much the environment causes human diseases and behaviours. But they ask, what makes twins grow up to be different? If two twins are less alike than the number of genes they share in common, this means that one twin must have had a different environment than the other. For example, one twin may have got less nutrition in the womb, or one twin may have had a closer relationship with dad, or one twin may have been bullied at school.

TEDS families help us with all four kinds of studies. Thank you so much for that help!

Health implications of loneliness

Lonely children 20 years later are at risk for cardiovascular disease

As you know, the TEDS-environment research team studies the health and development of twin children and their families. But you may not know that TEDS has a sister study, that we began many years before TEDS. In this sister study, we follow 1037 babies born in 1972 in Dunedin, New Zealand. The children in the Dunedin study are not twins. Our team has been following these children and their families for 32 years now! TEDS and the Dunedin Study, are called "longitudinal studies" because they follow children for years. This long-term approach allows scientists to better understand how children's social experiences influence their health much later in life.

This year, the Dunedin "children" turned age 32, and we visited them once again to test their health and wellbeing. Of the original 1037 babies, 1015 are still alive and we visited 906 of them. These families are very patient with us! We tested these 32 year olds for some of the signs of risk for heart disease. These risk signs we tested include overweight, high blood pressure, high cholesterol, a weak immune system to fight infection, and poor lung

respiratory capacity. Young adults who have these signs already in their 30's will be at risk for heart attacks and strokes in their 50's. Our team examined the Dunedin Study data to find out: How early can we tell which children will grow up to be at risk of heart disease? What could be done for children, to prevent them developing heart disease later on in life? We matched up each study member's data from home visits we carried out when they were in primary school in the 1970's to their new age-32 tests of cholesterol, blood pressure, overweight, immune function, and lung function in 2004.

Some of the answers may not surprise you. For example, overweight children had health risk signs by age 32. Children who grew up in poverty also had more health risk signs as adults. And children who had watched lots of TV had health risk signs too. But we also discovered a surprising finding. Children who were lonely in the primary years grew up to be at greater risk for heart disease. We identified lonely children on the basis of reports by their mothers and teachers when the children were between the ages of 7-10 years. These are children who were described at age 7-10 as solitary, usually played by themselves, and were not much liked by other

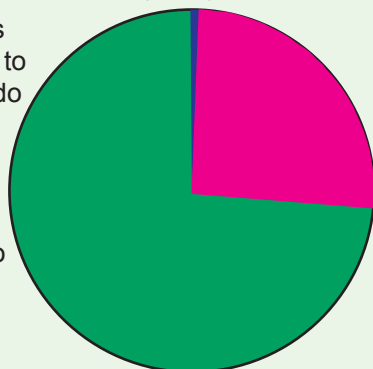
children. At that age, they did not have poor health, but 20 years later they had risk signs such as high cholesterol, poor lung capacity, and weak immune protection. This finding is important because it suggests that children's friendships can have a long-lasting impact on their physical health. We don't understand yet just how this happens, but there are interesting possibilities that need to be followed up. For example, it's possible that because loneliness is highly stressful for some children, it disrupts normal activities such as sleeping, eating, and playing sport that are important to maintaining good health. For some children, the experience of loneliness may be damaging, and it should not be ignored. Many scientists assume this finding will not apply to twins, because every twin has a twin, and therefore twins could not be lonely. This is one of the questions we would like to study in Teds-environment, in the future.

This report is titled Socially isolated children 20 years later: Risk for cardiovascular disease. By Professor Avshalom Caspi and Temi Moffitt. A copy can be obtained by ringing the Teds-environment freephone.

Did you know?

Most of the Teds-Environment twins studied so far like to go to places and do things together a lot. Almost a quarter of those asked so far say that they like to do things together sometimes. Only a very small proportion of our twins don't like to do things together.

Do twins like to do things together?



Yes Sometimes No



Knowing the impact of loneliness on children's health can help parents, teachers and GPs deal with loneliness to prevent future health problems.

“ For some children, the experience of loneliness may be damaging, and it should not be ignored. ”



WE NEED YOU!

Alan Taylor, A TEDS-Environment researcher, has recently published a paper showing that we need you all to participate in the study.

His paper used information from the TEDS-Environment study to investigate the effect of nonparticipation on our findings. Nonparticipation in studies can occur for many reasons, for example, when families refuse to take part or when they can't be found. Part of this research used information from all TEDS-Environment families and compared these with results from only those families who had responded to a mail survey. Less than a half the TEDS-Environment families responded to this mail survey.

These results showed that the primary influence of nonparticipation was to reduce

how important we found twins' family environment to be compared to how important we found genetic factors to be. This highlights the fact that if not everyone takes part in our study, we run the risk of making incorrect conclusions about our findings. We need all TEDS-Environment families to take part in our study so that we can make sure that our papers highlight the real factors affecting twins lives.

So please take part in our study and keep your contact details up-to-date so that we can find you if you move. All our details are listed on page 4.

Taylor, A. (2004). The Consequences of Selective Participation on Behavioral-Genetic Findings: Evidence from Simulated and Real Data. *Twin Research*, 7, 485-504.



“ We need ALL TEDS-Environment families to take part in our study so that we can make sure that our papers highlight the real factors affecting twins' lives. ”

Thank you very much for your participation so far. We really appreciate your time and effort in making this study successful.

Future Research

Insert pic of people working

Bullying - causes and consequences

Bullying is one of the most important concerns of school-aged children and a worry for parents.

Researchers working with the E-Risk study have started to examine the information about bullying that was collected as part of our last visit. Information revealed that a total of 17.3% of children in the E-Risk study have been bullied by the age of 7 years, and 4.2% have been bullied frequently. The bullying experiences reported by mothers were not trivial: 7% of the children suffered physical harm and 12%

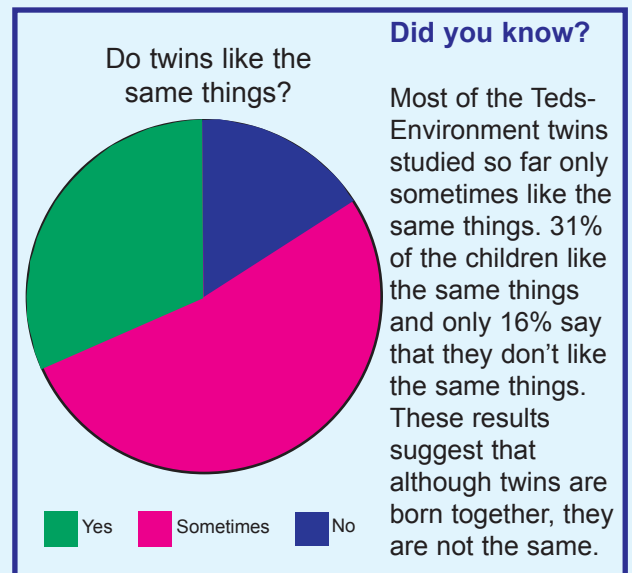
suffered psychological harm. Our plan is now to investigate whether being involved in bullying engenders behavioural and emotional problems in children.

Reducing low self-esteem

We know that children with low self-esteem are more likely to develop mental health problems, more likely to commit crimes, less likely to finish school and go on to higher education, and more likely to have employment problems.

Fortunately, few young children have low self-esteem. Only 12% of the TEDS twins have low self-esteem. Our

future work will focus on understanding how to reduce low self-esteem. For example, we will examine what types of environments (e.g., warm parenting and school achievement) work best to reduce low self-esteem and foster high self-esteem.



Feedback

Many mothers have asked us questions about things like, 'what do we find out about the parents?' or 'should twins be separated in class?'. We hope to answer your questions here, in the feedback section. We have also included some news about the next phase of the study.

TAMBA

<http://www.tamba.org.uk/html/home.htm>



What parents are saying?

The parenting section of the interview has already raised some interesting findings so far.

Around 24% of parents

studied say that they feel there is not enough money to go around. 20% find it difficult to pay for special activities for the family. Families have less difficulty paying for clothes and toys. Although we can afford the necessities of life, people are finding it difficult to afford other things.

27% of parents have also suggested that they disagree with their partner about raising their twins. Nearly 29% of parents say that their partner is not involved enough with parenting. 28% believe that they spend a significant

amount of time outside the home. It can be difficult to agree on the best parenting style to adopt or the amount of time to devote to the children.

96% of those interviewed had no problems with drinking and over 99% had no problems with drugs. Nearly 96% said that their partners had no problems with drinking.

These are initial findings and will no doubt change before phase 10 is complete. However, even the information we have gathered so far is helping us to identify possible areas of future research.

Together or apart?

With secondary school on the horizon for your twins, some of you have been thinking about the effects of your children being together or apart in class. The secondary school your children will go to may have a form group, which the twins could be together in but they may be in different subject classes. How will this effect their school achievement, friendships and emotional development?

In our October 2003 newsletter we told you about the findings from our study looking into classroom separation, which suggest that separating twins does not benefit either child's development and, at worst, may cause slight harm. This finding was more significant for identical twins. There had been little research in the past and it is hoped that our study will help parents and teachers to make the best decision for the twins. We published our findings in

the journal, *Twin Research*, which was met by good reviews. One article said it "is a good model for how such research can have practical implications for multiple-birth families" and "Researchers ... have a responsibility to make families and educators aware of this work".

We will continue to assess your twins' development at school and hope that we can follow up this research as the twins enter and go through secondary school.

More information?

If you would like to receive more information about the study, its papers or have any questions about the project so far, you can contact us on the details below.

We can send you an information pack to your address or direct you to more sources of information.

A new year, a new phase of the study

Starting in 2006, we will be coming to see you again. Many of you will have recently had a visit from us and we are going to see the rest of you soon. However, we are now planning the next stage of the study when we will need to see you again. This will happen around the time your children turn 12. It might seem like a long way off, but before you know it, we'll be back! As usual we will come back with more games and goodies for the kids.

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