

# **A Retrospective Analysis Exploring the Efficacy of the Teens and Toddlers Programme**

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Teens and Toddlers offers a comprehensive and holistic approach to targeted youth support to encourage NEET and teenage pregnancy prevention for “at risk” teenagers. The objective of this paper is to explore the efficacy of the intervention through a follow up questionnaire completed by graduates from the programme. Results revealed that 97.4% of graduates under the age of 18 did not report a pregnancy incident. 93% of respondents 16 -18 were in Education, Employment or Training (EET). Furthermore, the average grade obtained at GCSE level was 6, A-C grades. The findings of this study have generated results that suggest that the programme is effective in reducing expected pregnancy outcomes in high risk populations. The low pregnancy rates achieved within the sample, coupled with consistent changes in key attitudes and behaviours, as well as low NEET scores and high academic and vocational aspirations are strong evidence for the programme’s efficacy.

## **Introduction**

The commencement of adolescence is a time of dramatic biopsychosocial changes. It is a transition accompanied by an increased interest in sex, as well as developmental difficulties associated with making adaptive decisions, which often leads to suboptimal and risky behaviour (Luna et al., 2010). Such risky behaviours may include having unprotected sex, having sex before emotionally ready, drinking alcohol, taking drugs, getting involved in crime and generally making maladaptive decisions. Interventions targeted towards younger adolescents are important because young people respond better to behaviour change, thus risky behaviours may be prevented before they become established and more difficult to change (Gardner 2010).

Qualitative findings from a focus group (McDowell and Humphrey, 2010) consisting of young people aged 15-18 years old, conducted at Teens and Toddlers, revealed that young people are not receiving adequate information from schools regarding sex and relationships, which leaves them open to being influenced by inaccurate sources of information. The UK will continue to hold the highest teenage pregnancy rates in Europe (4.06%, ONS, 2009) if this issue

is not tackled through effective intervention. Furthermore, this will continue to dent the economy; the costs of teen pregnancy over the first five years are £57,000, (DFS, 2010).

Teens and Toddlers aim to educate and explore young people’s attitudes about relationships and sex so that they are better able to make their own decisions. The programme also recognises that risky behaviour, especially disengagement from education leads to teenage pregnancy (DFS, 2010). This paper will outline evidence as to why programmes such as Teens and Toddlers are important, prior to detailing the specific outcome from the Teens and Toddlers retrospective questionnaire, given to graduates.

## **Background**

There has been extensive literature linking adverse outcomes to early sexual encounters and pregnancies. An early sexual debut may lead to emotional problems, such as depression and low self-esteem (Meier, 2007) which could impede school work and increase the likelihood of undertaking other risky behaviours as well as displaying violent acts (Grimm, 2007). A recent longitudinal study conducted by Parkes, et al

(2010) found that sexual activity by age 16 was associated with reduced educational expectations and reduced participation in tertiary education, regardless of the level of academic achievement at 16 years old. Furthermore, potential confounding variables, such as differences in neighbourhood, family and school background were measured, together with differences in expectations and school engagement. These only partially accounted for these effects, therefore negative effects of early sexual activity on academic outcomes can extend beyond secondary school. In addition, sexual activity could increase expectations of cohabitation, marriage and having children thus leading to teenage pregnancy (Manning., et al 2004).

More recently, associations have been made between teenage pregnancy and unemployment (DFS, 2010). Being out of Education, Employment or Training (NEET) between the ages of 16 and 18 is linked to teenage conception as well as other negative outcomes (DFS, 2010).

The most recent published figures show that the proportion of young people aged 16-18 participating in education or training reached 82.7% (DFS, 2010). It is important to stress the close relationship between NEET and teenage pregnancy. For instance, almost 40% of teenage mothers have no qualifications, and 30% are NEET by the age of 30 (DFS, 2010). Teenage mothers are 22% more likely to be living in poverty than mothers giving birth aged 24 or over. In addition, young fathers are twice as likely to be unemployed at age 30 (DFS, 2010). The total current term costs of NEET show a resource cost of £1.8 billion and a public finance cost of almost £1.7 billion (Coles et al 2010). Clearly this needs to be addressed in order to reduce the cost to the economy.

The main precursors of NEET, which occur prior to the age of 16, include forms of educational disaffection and educational disadvantage. Educational disaffection is evident when analyzing figures showing school exclusion, self-exclusion and truancy rates (Coles et al 2010).

On this basis , Teens and Toddlers has tailored its intervention and consequently targets teenagers who are educationally disadvantaged via a risk selection tool (discussed below). The project tackles this issue on several levels, through a multifaceted approach (discussed later in this paper) which helps young people to re-engage with school through confidence building.

#### Risk Selection Tool

The figures discussed previously, are taken from the general UK population. Teens and Toddlers is tailored towards young people who are considered to be “at risk” of becoming teenage parents or NEET. National rates, although used as helpful indicators, are therefore not directly comparable to our sample. Participants for Teens and Toddlers programmes are selected on the basis of how ‘at-risk’ they are from becoming teenage parents or NEET by schools through an ‘at-risk’ rating questionnaire which is completed by teachers.

The questionnaire asks teachers to rate the likelihood that they will become a parent or NEET before the age of 18. In addition, it asked teachers to rate to what extent the teenager shows withdrawn behaviour, has been involved with drugs, has difficulties interacting with peers, has low self confidence, has poor attendance in school, is in care, comes from a single parent family as well as other similar items. This tool has been developed and piloted over several years and the items currently implemented have been shown to be the most predictive of risk.

Those who are eligible are invited to enrol on the programme. A pilot conducted with the teachers revealed that on average, teachers rated the likelihood of participants becoming teenage parents or NEET was 50%, placing these students as very high risk of becoming a teen parent or NEET. It is important to keep in mind that the sample size is small, however the next report we will be able to obtain a more accurate figure now that this measure is going to be incorporated into the standard risk tool.

### Risk and Alcohol

Research indicates that alcohol consumption is often linked to riskier sexual behaviours, including engaging in unprotected sex (Cho and Span, 2010). More specifically, perceptions of the level of intoxication and level of sexual arousal play an important role in alcohol's effects on risky sexual intentions (Davis et al 2009). Researchers have concluded that prevention and intervention programs should target state-specific sexual decision-making processes as a means of reducing sexual risk behaviour for both males and females (Davis et al 2009). Maisto et al., (2004) found that women and men who reported a greater perceived level of intoxication also exhibited poorer condom negotiation skills in a role-playing scenario. Many of the teenagers on current Teens and Toddlers projects report to be drinking alcohol and becoming intoxicated. The present retrospective survey aimed to explore the effects of alcohol in relation to sexual intercourse and unprotected sex.

### Teens and Toddlers

Teens and Toddlers is the flagship programme delivered by the registered charity COUI (UK). It claims to be an evidenced based, early intervention youth programme. Through participating in the Teens and Toddlers programme, disadvantaged teenagers aged between 14 and 17 are paired with younger children (3-5) who require extra attention, in a nursery setting. Participants build aspirations, life skills, educational attainment and self belief to achieve their potential and remain in education, employment or training. Teens and Toddlers have helped over 7,000 disadvantaged children and young people, in over 100 schools, across more than 26 Local Authorities nationwide, since the charity was founded in 2001.

During a Teens and Toddlers programme, participants receive approximately 40 hours of contact time with nursery children and 20 hours of curriculum input. The approach comprises a confluent pedagogy through integrating participants' personal experiences with a "toddler", with a theoretical understanding of the impact of having a child and the effects on

other aspects of life. Learning through experience is thought to create an opportunity for participants to more fully integrate their learning and increase the likelihood of a lasting effect.

### **Method**

The aims of the programme are to a) support vulnerable young people to develop life skills, aspiration and new positive life goals; b) develop emotional literacy (self reflection, self management, awareness of others and social skills); c) provide the knowledge and skills of SRE and sexual responsibility to prevent conception and protect sexual health; d) educate young people about the responsibilities of caring for a child to convey the importance and value of postponing pregnancy. The aim of this paper is to track pregnancy and NEET as well as to understand the longevity of the effects of the programme in relation to gender, ethnicity and region. The aims of the programme are to a) support vulnerable young people to develop life skills, aspiration and new positive life goals; b) develop emotional literacy (self reflection, self management, awareness of others and social skills); c) provide the knowledge and skills of SRE and sexual responsibility to prevent conception and protect sexual health; d) educate young people about the responsibilities of caring for a child to convey the importance and value of postponing pregnancy.

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### Participants

The sample consisted of 416 graduates from Teens and Toddlers who had completed the course a minimum of 6 months prior to posting the survey. From this sample, 371 (89.2%) were female and 45 (10.8%) were male with a mean age of 16 (SD= 1.64) ranging from ages 13-20. 46% of the sample represented individuals from ethnic minority groups.

### Procedure

Questionnaires were posted with a free post envelope enclosed, to the graduates of Teens and Toddlers (aged 20 and under). In addition, graduates with email accounts were emailed the questionnaire to complete on line.

### Response rate

1,300 questionnaires were sent, 256 were returned and 416 were completed. Typically response rates for postal surveys are around 30% (Heerwegh 2005). In order to increase the rate of return, the questionnaire was promoted on Facebook as well as through a leaflet enclosed in a standard "Youth Voice" magazine created by the teenagers as well as phone calls. In addition, a £10.00 Arcadia voucher was offered for completion of the questionnaire. The response rate was 39.8%, which exceeds the average rates. For the purpose of analysis and to explore regional effects, the boroughs were coded into two groups, London and out of London where 56% of respondents lived in London and 44% lived outside. Table 1 shows a breakdown of where participants lived.

### Measures

The questionnaire consisted of 34 questions quizzing teenagers on Teens and Toddlers, how it had effected their beliefs and attitudes about sex, parenting and alcohol as well as exploring their future aspirations and details regarding Education, Employment and Training (see below). The questionnaire comprised four sections and was designed to ensure the language and concepts were suitable for the sample group. The instrument was piloted with other young people before distribution and it was modified accordingly to ensure it was suitable for young people at different levels of educational ability.

*Section 1* asked young people to assess what they had learned from Teens and Toddlers and to what extent it affected their attitudes, values and behaviours regarding key issues sexual health, parenthood, education and aspirations. Furthermore, the section included questions relating to drugs and crime.

*Section 2* ascertained respondent's current situation with reference to education, training and employment.

*Section 3* asked respondents to report their pregnancy status.

*Section 4* questions participants on their views regarding alcohol and sexual activity and allowed respondents to make general comments.

### **Analysis**

Descriptive statistics were used to report the sample characteristics. One-way analyses of variance (ANOVA) and t-tests were used to detect any differences in respondents' answers. Significance levels for all tests were 2-tailed. Factor Analysis is used to identify or confirm a set of factors or constructs based on responses to questionnaires. All data collection processes were conducted in accordance with the Young People's Unit (CYPU) Core Principles and COUI's internal Research policy.

### **Results**

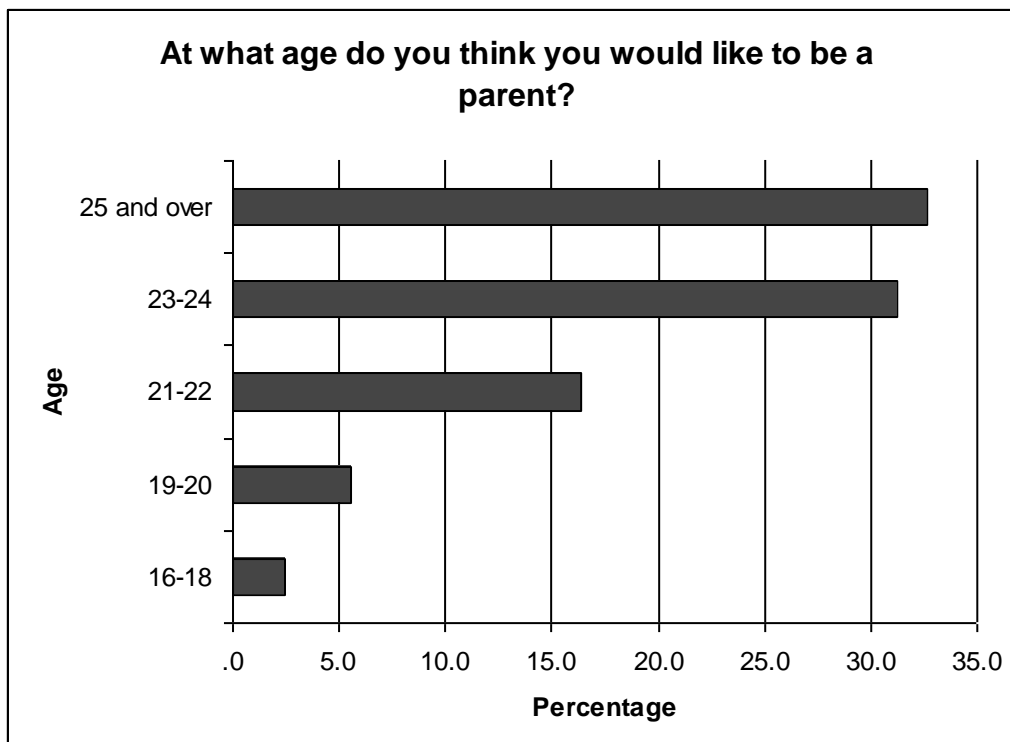
#### *Efficacy of the programme at influencing conception*

84% of respondents reported that the programme had a positive effect in influencing them to increase the age at which they would like to have children.

Females (*Mean* = 4.57, *SD* = 2.9) considered the Teens and Toddlers programme to have had a greater impact on the age at which they would like to have children than male respondents (*Mean* = 3.48, *SD* = 1.4) ( $t_{(357)} = 2.26, p < .05$ ). There were no significant effect between ethnic groups and geographical location. When participants were asked at what age they believed would be the ideal age to have a child, most responses fell in the 25 and over category (see graph 1). The mean response was 23-24 (*M* = 4.9, *SD* = 1.0). Despite differences amongst males and females being sought in the previous question, there was no effect between gender, ethnic groups or geographical location.

<b>Table 1: Respondents according to Borough</b>		
<b>Borough</b>	<b>Frequency</b>	<b>%</b>
Brent	44	10.6
Camden	21	5.0
Greenwich	25	6.0
Islington	38	9.1
Southwark	26	6.3
Tower Hamlets	4	1.0
Haringey	24	5.8
Hammersmith and Fulham	5	1.2
NE Lincolnshire	30	7.2
Northumberland	18	4.3
Sutton	16	3.8
Redcar and Cleveland	14	3.4
Kent	14	3.4
Hounslow	1	.2
Lewisham	11	2.6
Enfield	11	2.6
Tameside	36	8.7
Blackpool	14	3.4
Walsall	21	5.0
Northampton	7	1.7
Wisbech	21	5.0
Bristol	11	2.6
Westminster	4	1.0
<b>Total</b>	<b>416</b>	<b>100.0</b>

**Graph 1:** Displaying responses to what the ideal age would be to have a child.



97% felt that over 19 years old and 91% felt that over 21 was an ideal age to have a child. In addition, 91% of participants reported that Teens and Toddlers helped them understand more about sexual health and the realities of having babies.

### Teenage pregnancy incidents

The majority of respondents (n = 307) were under 18 and from this sample only 8 pregnancy incidents were reported. Thus, 97.4% of participants under the age of 18 did not report a pregnancy incident. For births, the age was calculated for the age of the mother at the time of the birth; for miscarriages and terminations, the age is calculated for the age of the mother at the time of the miscarriage or termination. Government statistics such as those reported by the UK Teenage Pregnancy Unit, do not incorporate the category of miscarriages.

Consequently, the current data presents a more robust measure of pregnancy incidents. Out of 8 pregnancy incidents, 3 had a baby, 3 had a miscarriage (this data is removed from overall pregnancy incidents), 2 had a termination and 3 are currently pregnant and plan to keep the baby (See table 2). In terms of ethnicity, those reporting a pregnancy incident were all white and British. One male had caused a pregnancy, the remainder were female. Table 3 includes specific statistics for the participants reporting pregnancy incidents. Table 4 displays answers to whether or not falling pregnant was the right time.

**Table 2: Pregnancy incident information**

	Frequency	%
<b>Overall pregnancy incident</b>	<b>8</b>	<b>2.6</b>
Had a baby	3	18.8
Had a miscarriage	3 (-)	18.8
Had a termination	2	12.5

**Table 3: Statistics related to pregnancy incidents**

Percentage in Employment, Education or Training	64%
Percentage achieving other qualifications	100%
Percentage who are not relying on Benefits	80%
Percentage pregnancy incidents in London	18%
Percentage pregnancy incidents outside London	82%

**Table 4: Responses to "Do you feel that you became pregnant at the right time?"**

- *"I am pregnant now and feel like its a great time because I am 16 now, have a lovely boyfriend and great family"*
- *I do not regret having my little girl but I wish I would have waited a few years but I am coping very well and would not change her for the world"*
- *"No because I didn't attend school after I had my boy & I can't have the life I thought I would have had!! But it's great experiencing parenthood"*
- *"No, because I can't do the things I would have liked to do. But I would not change him for the world"*
- *"Yes, support around me is great and a caring boyfriend"*

Efficacy of the programme at influencing participants to progress with education and career.

Participants were asked specifically about Teens and Toddler's role in influencing educational and vocational aspirations. See table 5, displaying mean scores, standard deviations and percentage agreeing with each statement.

A one way ANOVA revealed no significant effects of the following items and gender, ethnicity or geographic location. Ethnicity (which is divided into the standard 5 categories) was subsequently divided and coded into two groups, BME groups and White British in order to explore if there were any differences, and still there were no significant differences between groups.

The questionnaire asked what grades the teenagers obtained at GCSE level. Not all the participants had completed these examinations as they were not old enough, thus the sample number was lower (N= 176). The average levels of people receiving grade A-C was 6 (SD = 3.5). The requirement to continue to A Level is 5 A-C grades currently.

Education, Employment and Training Figures

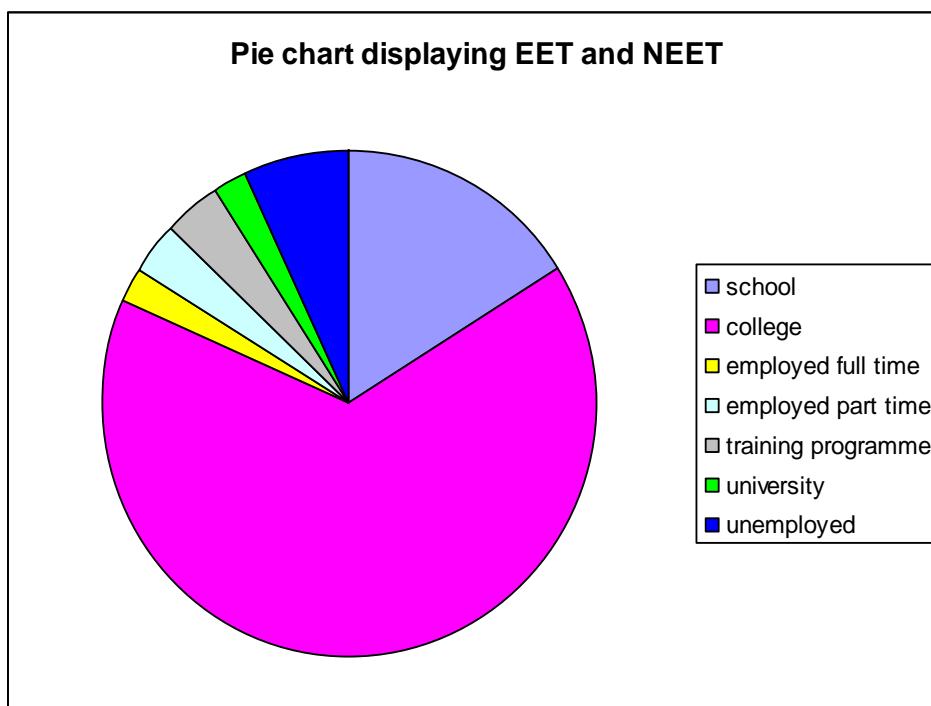
Respondents were asked to report their current situation in terms of employment, education and training. Figure 1 indicates that 93% of respondents 16-18 are in Education, Employment or Training (EET). The majority were still at college or school. The latest figures for the end 2009 show that proportion of young people aged 16-18 participating in education or training reached 82.7% (DCSF, 2009). There was no significant difference between males and females within this age category (16-18) which enables comparisons to national data, however overall (ages 13-20) there was a significant difference between Male and female responses (( $t_{(411)} = 1.79, p < .05$ ). When data was aggregated into binary groups, those who were unemployed and those who were employed, there was no significant difference between males and females. Likewise, there were no effects found between those living in London and out of London.

Participants were asked to give details of their future plans, with many hoping to go to university, or achieve the job they have always wanted. Some were personal goals related to travelling and enjoyment. Interestingly 94% of the comments related to education and career. Table 6 displays some quotes illustrating this.

**Table 5: Mean scores, standard deviations and percentage agreeing with each statement in relation to the programmes influence on educational and vocational aspirations**

Statement	N	Mean	SD	% Agree
Doing T&T motivated me to try harder academically	363	3.95	.94	<b>78%</b>
I learned that having a good education can give you more choices	362	4.36	.84	<b>91%</b>
Doing T&T motivated me to want more for myself vocationally	363	4.24	.85	<b>87%</b>
Doing T&T had a positive impact on grades	358	3.85	1.87	<b>69%</b>
Looking back, how much did it affect how you did in your GCSE's - or outside school in other areas of your life	356	3.80	1.03	<b>66%</b>

**Figure 1: EET and NEET for 16-18 year olds in the sample**



Risky Behaviours

The following questions were selected as a result of a factor analysis, which selects constructs that are highly correlated with each other. These were labelled under the category “risky behaviours” as they all relate to perceptions of risk whether it be in relation to alcohol, unprotected sex or putting themselves in a situation with may be maladaptive.

Below Table 7 displays the responses to questions relating to risky activity such as having unprotected sex, drinking alcohol and its perceived effects on sexual activity. There were no significant differences between males and females, ethnicity or location in the responses. The percentages represent agreement with the question. For the mean values for the first 3 questions, 1 = not agreeing with the statement and 5 = agreeing strongly with the statement. For the remainder 1= yes and 2 = no. SD (standard deviations) measures the spread of the data about the mean value.

Additionally, Table 8 provides examples of participants’ comments about alcohol and sex.

General Impact

Teenagers were invited to comment on their overall experience of the programme. Table 9 provides examples of quotes to highlight these responses. Participants were also asked to rate to what extent they agreed with questions relating to their experience. Table 10 shows the responses to these questions.

**Table 6 Responses to “In 5 years time, what will you be doing?”**

- *“Writing poetry as I’d like to be a poet”*
- *“Either running my own company or being an assistant manager for a nursery/primary school”*
- *“Finishing a teaching course for early age at university”*
- *“Finishing college and hopefully at university doing a teaching degree”*
- *“Hopefully will be a primary school teacher, have my own place and will travel around the world with my mates”*
- *“Hopefully just finished my masters in Marketing and having a graduate job at a financial news company”*

**Table 7: Responses to questions relating to risk**

Question	N	Mean	SD	% Agree
How much do you feel doing T&T increased your practice of safe sex	363	4.00	0.95	<b>83%</b>
During T& T I learned about sexual health	363	4.32	0.79	<b>92%</b>
Since doing T&T I am more likely to stay away from people who might get me in to trouble	357	4.26	0.98	<b>92%</b>
Overall, do you think it is effective in encouraging young people to realise their options and not get caught up in negative behaviours	357	4.69	2.20	<b>86%</b>
Can drinking alcohol make you more likely to have sex?	357	1.22	0.56	<b>86%</b>
Do you think people your age drink to make them confident	357	1.50	0.78	<b>68%</b>
Does getting drunk make people have unprotected sex?	356	1.12	0.45	<b>94%</b>
Have you had sex with a new partner without using a condom	353	1.80	0.42	<b>21%</b>

**Table 8: Displaying comments regarding alcohol and sex**

- *“Alcohol can be drunk but should be within limit, not to get wasted and have unprotected sex or peer pressure. Sex should be with the right person at the right time not a mistake. Use a condom, unless married and want children, should be financially secure”*
- *“I believe that people get pressured into drinking at parties because it would seem you are not enjoying yourself at the parties”*

**Table 9: Displaying quotes relating to the programme**

- *“I feel all young children should have the opportunity to participate in T&T and it should be a lesson in the curriculum”*
- *“I had a great time doing T&T and would recommend it to anyone. It had helped me a lot and I have changed so much since doing it 2 years ago. The lady in charge of our group is so great and really is so helpful and I have inspired to be like her since I met her. A big thank you to Teens and Toddlers”*
- *“Doing Teens and Toddlers made me decide that I wanted to work in childcare and I am now enjoying my level 3 childcare course at college”*
- *“Glad I did T&T as it was well worth it and very enjoyable. Thank you to everyone who organised it and made it possible so it happened”*
- *“I have really enjoyed being part of the T&T course, I think this course is a really good opportunity for teenagers to understand the importance of having protected sex, and making correct decisions for the future”*

**Table 10: Responses to questions relating to general impact**

Question	N	Mean	SD	% Agree
T&T made a positive difference in my life	363	4.06	0.87	<b>72%</b>
T&T helped me feel more confident	359	4.22	0.93	<b>84%</b>
T&T made me more determined to reach my goals	357	4.41	2.25	<b>86%</b>

### Discussion

The results from the retrospective questionnaire suggest that the intervention is effective in its aim to minimise teenage pregnancy conception rates, encourage Education, Employment and Training (EET) and positively influence the attitudes that young people have related to issues such as these.

Conception rates were extremely low with only 2.6 % of participants under the age of 18 reporting a pregnancy incident, nearly half the National rates of 4.06%, (ONS, 2009). Considering that the sample is selected on the basis of risk of becoming a teenage parent, these results are very positive. Teachers had predicted that this rate is more likely to be 50% on the basis of the risk criteria discussed in the introduction. An interesting observation was that despite a nearly equal split between respondents from London (56%) and the respondents from outside the city (44%), 82% of pregnancy incidents were located outside London. Further qualitative analysis could offer an explanation as to why this may be the case. One hypothesis could be that conception risk is more prevalent in schools outside London.

An important question often asked is whether this low pregnancy incident percentage is attributable to the programme. Responses to the questionnaire revealed that teenagers (84%) felt that the programme had a positive effect in influencing them to increase the age at which they would like to have children, particularly females, hence revealing strong implications that Teens and Toddlers is delivering a programme in accordance with its aims.

Furthermore when participants were asked at what age they believed would be the ideal age to have a child; most responses fell in the 25 and over category. This is particularly interesting as the same teenagers enrolling on the course were asked the same question in a starting questionnaire, which revealed a mean score of 18-20 years old. The percentages indicated, coupled with the comments from teenagers provide evidence for the efficacy of the programme.

Being out of education, employment or training (NEET) between the ages of 16 and 18 is linked to teenage conception as well as other negative outcomes (DFS, 2010). 93% of respondents 16-18 are in Education, Employment or Training (EET). The national figures show that proportion of young people aged 16-18 participating in education or training reached 82.7% (DFS, 2010). Similarly to pregnancy incidents, we have to be cautious when comparing these figures as Teens and Toddlers participants are at a much higher risk of NEET, compared to national rates.

Participants were keen to inform us of their future plans, with many hoping to go to university or achieving the job they have always wanted. Participants were asked to report what they would like to be doing in 5 years time. Interestingly 94% of the comments related to education and career. Perhaps this is an indication that messages regarding education, choices and self efficacy are resonating within the teenagers even after the programme has ended.

Scores relating to EET were supported by actual grades received by the students, with an average of 6 A-C grades being obtained by the participants. This is very encouraging considering pupils have to receive 5 A-C grades to continue to A Levels. In addition, 91% agreed that education gave them more choices, 78% reported that Teens and Toddlers encouraged them to work harder academically and 87% felt that the programme motivated them vocationally. Once again, the strong emphasis in the curriculum regarding the ascertainment of academic and vocational goals seems to have remained an important message.

Perception of the programme's contribution to alerting teenagers to risk of having unprotected sex was high, with 83% agreeing that Teens and Toddlers increased their practice of safe sex and 92% reporting that they learned about sexual health. Research indicates that alcohol consumption is often linked to riskier sexual behaviours, including engaging in unprotected sex. The curriculum highlights the effects of alcohol and how intoxication affects decision making ability. It seems from the results that teenagers, both male and female understand the Teens and Toddlers correlation between sex and alcohol (94% felt that drinking alcohol can lead to unprotected sex). Furthermore the programme seemed to have influenced teenagers to have the confidence and clarity not to surround themselves with people who could have a negative impact on them. For instance 92% felt that the programme was effective in encouraging young people to stay away from people who may get them into trouble.

Responses regarding attitudes regarding the Teens and Toddlers programme suggested that it was very useful and enjoyable, with 72% reporting that it made a positive difference in their lives and 86% claiming that it had helped them to reach their goals. Causation is a difficult concept to demonstrate, however the respondent's reports and comments from the retrospective questionnaire reveals that Teens and Toddlers has made a positive impact with regards to their attitudes and behaviours. These attitudes have remained positive over varying

times suggesting that the Teens and Toddlers programme is effective in the long term and short term. Further evidence to support this may be found in the very low pregnancy status of the graduates. Although cause may not be extrapolated, there is a plethora of evidence to suggest the relationship between the programme and the attitudes of those participating in it.

It is important to remember that the present study is a snap-shot taken from a mixed sample of 13-20 year old graduates and is not representative of everyone participating on the programme. In an ideal situation, all graduates would have been contacted however due to various constraints, (financial, time and resources) as well as simply losing contact with the teenagers, this has not been possible. A larger sample size would increase validity and generalizability of the findings. Future studies may need to consider increasing the incentive as well as ensure contact addresses and telephone numbers are regularly monitored in order to increase response rate.

While a 39.8% response rate is acceptable considering the at-risk and often transient population sampled, the improvement of this would be highly positive, enabling more definitive statements about the programme's efficacy. Typically response rates are 30% for the general population, so considering that the sample consists of low-socioeconomic groups who are notoriously transient and difficult to research, the response rate is certainly good.

Teens and Toddlers is continuing to evaluate programmes through other means of research in order to generate more evidence to support the intervention's efficacy. Pilots involving qualitative as well as quantitative analysis are being undertaken at present. Furthermore, the DCSF commissioned a Randomised Controlled Trial (RCT) of Teens and Toddlers which is currently being independently conducted and evaluated by The National Centre for Social Research (NatCen) and the London School of Tropical Medicine (LSTM). This is an exciting development as it should shed some more light

on what is most effective about the programmes, and the causal pathways which lead to this.

Randomised controlled trials are the most rigorous way of determining whether a cause-effect relation exists between the intervention and outcome. Girls are randomly allocated to intervention groups (those girls receiving the Teens and Toddlers programme) and controls (those not receiving Teens and Toddlers intervention). The participants on the controls are matched with those in the experimental groups and NatCen undertake quantitative and qualitative evaluations on the participants. These findings will be available to read in 2012.

### Conclusion

The findings of this retrospective study have generated results that suggest that the programme is effective in reducing expected pregnancy outcomes in high risk populations. The low pregnancy rates achieved within the high risk sample, coupled with consistent changes in key attitudes and behaviours, are strong evidence for the programme's efficacy. Teenage pregnancy is a multifaceted and complex phenomena involving cognitive, emotional, developmental (psychological and physiological) as well as environmental factors. Teens and Toddlers has provided a comprehensive intervention that encompasses all these factors, hence yielding low NEET scores, positive attitudinal scores and low pregnancy incident rates.

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