

# A retrospective analysis of the efficacy of the Teens and Toddlers programme

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This paper comprises a retrospective analysis of the efficacy of the Teens and Toddlers programme, which is an experiential learning approach to reducing teenage pregnancy in “at risk” populations. A survey was conducted with over 200 graduates of Teens and Toddlers programmes that were conducted in London, UK. Strong evidence was found to suggest that the aims of the programme are both well implemented and effective. It is concluded that while the programme requires further research, it appears to be successful in affecting the attitudes, behaviour and pregnancy status of participants.

## Introduction

Teenage pregnancy is a complex and diverse problem. The biological, psychological and social changes that young people experience as they develop from childhood to adulthood is accompanied by a natural and healthy increase in their interest in sex. Experimentation with drugs and alcohol, lack of sex education, peer pressures, parental role models and other risk taking behaviours all contribute to increased chances of adolescent pregnancies. Britain has the worst record of teenage pregnancies in Europe, and despite government resources being directed at addressing this problem, the high pregnancy rates in the UK have remained relatively static.

### ***The Teens and Toddlers Programme***

The Teens and Toddlers programme is a practical teenage pregnancy prevention programme that is an initiative of the charity Children Our Ultimate Investment UK (COUI UK). Teens and Toddlers programmes consist of a 10-week intensive course where teenagers spend two afternoons per week in intensive interaction with toddlers in nurseries and undertake lessons related to the impact of teenage pregnancy. The course is provided to both female and male young people who are disadvantaged and/or socially excluded that are identified as being most at risk of becoming teenage parents. In the past, the ratio of males to females has been approximately 1:3, but this figure is becoming more balanced in recent programmes.

Participants for Teens and Toddlers programmes are selected by schools according to the following criteria which are considered risk factors for teenage pregnancy: Poverty/social exclusion, Experience of being

in care, Mother was a teenage mother, Educational and behavioural problems, Experience of sexual abuse, Mental health problems, and Experience of crime. The aim is to enrol young people who are most “at risk” of teenage pregnancy to the programme, however teenagers are not forced to undertake the programme, once targeted they are offered the choice to be involved or not.

The Teens and Toddlers programme has been delivered as a pilot project in the London (UK) Boroughs of Southwark, Greenwich, Tower Hamlets and Islington.

### ***Approach of the Programme***

The Teens and Toddlers programme claims to be a practical teenage pregnancy prevention and mental health programme that fosters awareness of the realities of conception and parenting. The course aims to educate young people about the responsibilities associated with caring for a child by a direct experience of being “paired” with a 3-4 year old child. “Teenagers” accompany and interact with a “toddler” for a two hour session, and then undertake a one hour class that includes experiential and theoretical learning.

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 personal experience based on time with a “toddler”, with theoretical understanding of the material. 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.

### **Programme Aims**

The Teens and Toddlers programme asserts that an effective way to convey the importance and the value of postponing pregnancy, and thereby achieve a reduction in teenage pregnancy rates, is to give young people an experience of the responsibility and work involved in caring for a child and to help them develop alternative goals to being pregnant, such as satisfying work and relationships. Table 1 details the specific aims of the Teens and Toddlers programme as explained by COUI UK. These aims are quite broad and difficult to evaluate, however it is important to

understand the effect that the programme has on its participants.

### **Research Aims**

The objectives of the research were to conduct a retrospective analysis of the effect of the Teens and Toddlers project, including objective measures of pregnancy rate among participants in the programme, and teenagers' attitudes and opinions about teenage pregnancy and the suitability of the Teens and Toddlers programme and its methods.

**Table 1: Aims of the Teens and Toddlers Programme**

#### ***To prevent teenage pregnancies through:***

1. Providing practical experience of working with children and developing an appreciation of the enormous privilege, the responsibility and hard work involved in having a child.
2. Raising awareness of the personal and financial responsibilities of an unexpected pregnancy through developing an understanding of the impact on their families and personal lifestyle.
3. Encouraging the development of alternative goals to being pregnant, such as satisfying work and relationships.
4. Educating teens about the realities of pregnancy, the importance of sexual responsibility and the effects of harmful behaviours. Drugs, violence and health related factors – from foetus to neonate to child.
5. Providing one to one counselling and mentoring/ coaching to young people who are emotionally challenged and need support to enhance the outcomes of Teens and Toddlers.

#### ***To improve future parenting skills by:***

6. Teaching child development, emotional and physical, to provide basic knowledge which can improve behaviours and communication.
7. Developing appropriate communication skills and providing an environment where they learn to reflect on the impact their words and behaviour on children and develop more helpful forms of behaviour.
8. Helping teenagers to internalise good parenting skills thereby addressing for the future, the generational perpetuation of teenage pregnancy and social deprivation.

#### ***To improve young people's emotional literacy by:***

9. Helping them to develop new behaviours, new goals and a new vision of their lives through:
  - a) engendering and supporting a more informed and empowered sense of choice;
  - b) teaching skills of self-reflection, self-management, empathy, communication and social competence.

#### ***To foster 'citizenship skills' by:***

10. Enabling a multi-cultural group of young people to effectively contribute to their local community engendering an appreciation of difference and to empower them to develop positive goals for the future and to value the part that they play in society.

## Methods

The study involved a survey of young people who had undertaken the Teens and Toddlers programme. All data collection were conducted in accordance with the Children and Young People's Unit (CYPU) Core Principles and COUI's internal research policy.

### Sample

The survey was distributed to 203 young people who had undertaken the Teens and Toddlers programmes in Greenwich and Southwark Boroughs between 2000 and 2003. In order to present a realistic picture of the effect of the programme it was decided that a requirement for inclusion in the study group was that approximately one year must have passed since undertaking the Teens and Toddlers programme. To satisfy this requirement 28 possible respondents were excluded, leaving a possible sample size of 175. Of these 175 potential respondents, 83 completed questionnaires were returned, resulting in a 47% response rate. There were six different cohorts of graduates from Teens and Toddlers programmes included in the study sample, four from Greenwich and two from Southwark.

### Participants

The sample comprised 83 respondents, including 62 females (74.7%) and 21 males (25.3%). At the time of the survey the ages of respondents ranged between 14.7 years and 20.0 years. The mean age was 16.9 years ( $SD = 1.1$  years). The time since participants had undertaken the Teens and Toddlers programme ranged between 0.92 years (11 months) and 2.92 years (35 months). The mean time since undertaking the Teens and Toddlers programme was 1.78 years ( $SD = 0.5$  years).

### Procedure

The pencil and paper questionnaire was distributed by mail and returned via reply paid post. 14 days was allowed for the return of questionnaires.

### Instruments

The questionnaire comprised three sections. Care was taken to ensure the language and concepts used in the questionnaire were suitable for a teenage sample group. The instrument was piloted with other young people before distribution and changes to wording and presentation made to ensure that young people at different levels of educational and mental ability could complete the survey.

### Section 1

Section 1 requested participants to report their pregnancy status. Both males and females were asked these questions. Females were asked to describe whether they were "a female who has NOT become pregnant", "a female who became pregnant but I didn't have the baby" (i.e., a miscarriage or abortion), or whether they had "become a mother". Males were asked to describe whether they were "a male who has NOT got a girl pregnant", "a male who has got a girl pregnant but she didn't have the baby" (i.e., a miscarriage or abortion), or whether they had "become a father". In the second and third options for both males and females, respondents were asked to list month and year dates of pregnancy loss or birth.

### Section 2

Section 2 focussed on participants' attitudes about teenage pregnancy and the value of the Teens and Toddlers programme. Respondents were asked to rate on 5 point likert scales, where "1" referred to "Not at all", "2" referred to "Not much", "3" referred to "Unsure", "4" referred to "A little" and "5" referred to "A lot", the extent to which they felt the Teens and Toddlers programme had effected them. Four question were asked: question 1: "How much do you feel the T&T programme has influenced you to increase the age at which you would like to have children?"; question 2: "How much do you feel the T&T programme affected your practice of safe sex (using condoms)?"; question 3: "How much do you feel that doing the T&T programme made a positive difference in your life?"; question 4: "Overall how useful would you say the T&T programme would be to other teenagers?". Finally, participants were asked "What do you think would be the ideal age for you to become a parent?" and requested to respond using the following scale: "Under 16", "16-18", "18-20", "20-22", "22-24", "Over 25".

### Section 3

Section 3 invited participants to make open ended responses about the programme with the following questions "What was the most important thing(s) you learned from Teens and Toddlers?" and "Are there any other thoughts or comments that you would like to make?" Finally respondents were asked how they defined their ethnicity according to five categories: "White", "Mixed", "Asian", "Black" and "Chinese". Standard ethnic monitoring strata were provided as options within these categories.

## Results

Data management and analysis were conducted using SPSS for Windows, Release 12.0.1. When Student's *t* tests are performed, Levene's test for the equality of variance was routinely applied and, if necessary, the unequal variance model is reported (including adjusted degrees of freedom). Due to a small cell sizes the ethnicity measure was collapsed from 10 response categories (of a possible 25 categories) to two categories. 56% of respondents defined their ethnicity as "white", while the rest of the sample described themselves as "mixed white and black Caribbean" (9%), "black Caribbean" (10%), "black African" (12%), "black Ghanaian" (9%). Another four respondents (5%) defined themselves as "asian". Therefore, for the

purposes of this analysis, ethnicity is categorised into "white" and "black/asian" groupings. Table 2 provides percentage responses to attitudinal questions about the impact of the Teens and Toddlers programme on respondents, and Figure 1 provides a graphical illustration of these responses.

### Section 1: Pregnancy levels

Of the 63 female respondents, one participant reported having become pregnant since undertaking the Teen and Toddlers programme. At the time of the survey that participant was 19.4 years of age and expected to give birth within 6 months. No participants reported abortions or miscarriages. None of the 20 male respondents reported having caused a pregnancy.

	Not at all	Not much	Unsure	A little	A lot
1. Increased the age that you want to have children	-	1.2%	7.2%	49.4%	42.2%
2. Influenced your practice of safe sex	6.0%	7.2%	2.4%	13.3%	71.1%
3. Made a positive difference in your life	-	2.4%	10.8%	47.0%	39.8%
4. Would be useful to other teenagers	-	6.0%	1.2%	9.6%	83.1%

### Section 2: Attitudinal variables

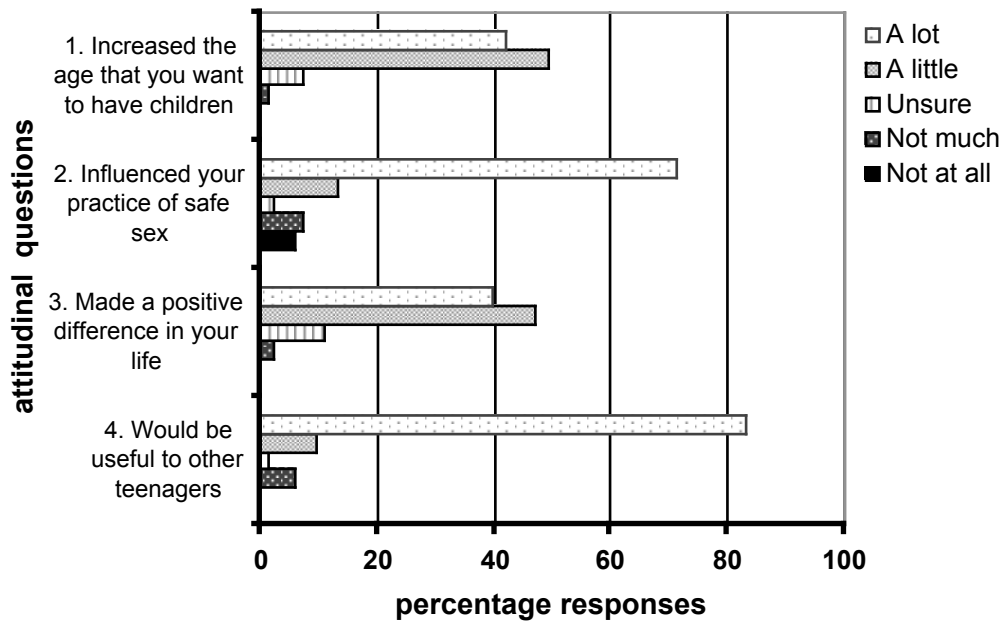
Summaries of results from analyses of attitudinal variables are provided in Table 2 and Figure 1.

#### ***Increased the age that you want to have children***

Over 90% of respondents reported that the Teens and Toddlers programme had a positive effect in influencing them to increase the age at which they would like to have children (see Table 2). Females ( $M = 4.5$ ,  $SD = 0.5$ ) 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 ( $M = 3.9$ ,  $SD = 0.7$ ) ( $t_{(81)} = 3.59$ ,  $p < .001$ ). Further, an ANOVA analysis indicated significant findings that the older respondents were, the more they believed the programme had influenced them to increase the age at which they felt they should have children ( $F_{(5,77)} = 2.21$ ,  $p < .05$ ). However when respondent age was analysed while controlling for the time since respondents had undertaken the programme, this significant result was not maintained, indicating that the age of respondents in itself is not a major factor. There were no differences on the extent of this effect between ethnic groups.

**Figure 1: Percentage responses to attitudinal questions about Teens and Toddlers Programme in graphical form**



***Influenced your practice of safe sex***

Over 70% of respondents reported that undertaking the Teens and Toddlers programme influenced their practice of safe sex “a lot”. The remainder of respondents were spread across the other categories, due at least in part to the fact that some participants reported not being sexually active. This specific information was not requested, but it was reported in additional notes offered by some respondents. There were no significant effects in the analyses of these data for gender, age or ethnicity differences, and the time it had been since respondents had taken the Teens and Toddlers programme.

***Made a positive difference in your life***

While nearly 11% of respondents reported being “unsure” about whether undertaking the Teens and Toddlers programme had made a positive difference in their lives, 47% felt that it affected them “a little” and 38% felt it had affected them “a lot”. This indicates a broadly positive impact of the Teens and Toddlers programme on the attitudes of respondents. There were no differences between gender, age or ethnicity groups, or for the time since programmes.

***Would be useful to other teenagers***

A very high proportion of respondents (83%) reported that they felt the Teens and Toddlers programme would be useful for other teenagers. This opinion did not differ significantly between ethnic or gender groups. A significant ANOVA analysis ( $F_{(5,77)} = 4.79, p < .001$ ) indicated that as the time increased from when respondents had undertaken the Teens and Toddlers programme their attitude that the programme would be useful to other teens also increased. Similarly, there was a significant trend for the perceived usefulness of the programme to other teenagers with age ( $F_{(5,77)} = 2.73, p < .05$ ). Both these effects remained significant when the influence of the other variable was controlled for, indicating a strong effect for each variable.

***Ideal age to become a parent***

All respondents reported that they felt the ideal age to become a parent was over 18. The “18-20” age category was identified by 3.6% of respondents, the “20-22” category by 9.6% of respondents, the “22-24” category by 43.4% of respondents, and the remaining 43.4% nominated the “over 25” category as their ideal age to become a parent. There were no gender or age differences in responses, but a significant difference was observed for

ethnicity ( $t_{(81)} = 4.56, p < .001$ ). The “black/asian” group ( $M = 5.7, SD = 0.7$ ) reported a higher ideal age for becoming a parent than did the “white” group ( $M = 4.9, SD = 0.7$ ). An ANOVA analysis indicated significant findings ( $F_{(5,77)} = 3.49, p < .001$ ) for an increase in respondents’ perceptions of the ideal age to become a parent with an increase in the time since they had undertaken the Teens and Toddlers programme.

For a small subset of the sample ( $n = 12$ ) data existed that provided a measure of respondents’ perceptions of the “ideal age to become a parent” before they had undertaken the Teens and Toddlers programme. This information was not available for all respondents as it was sourced from data that has only been collected by COUI UK since 2003. For this subset, a significant difference existed ( $t_{(12)} = 8.12, p < .001$ ) between the pre-programme measures of “perceived ideal age to become a parent” ( $M = 3.6, SD = 0.8$ ), and their opinions at the time of the retrospective analysis ( $M = 5.3, SD = 0.9$ ).

#### **Borough Differences**

No differences were recorded between Greenwich and Southwark samples for the effect of increasing the age of wanting to become a parent, practice of safe sex and general positive impact of the programme. However, participants from Greenwich based Teens and Toddlers programmes tended to believe that the programme would be more useful to other teenagers than the Southwark participants ( $t_{(36)} = 2.36, p < .05$ ), while

Southwark based participants believed that the ideal age for them to have a baby would be older than that reported by participants from Greenwich ( $t_{(81)} = 3.20, p < .001$ ).

#### **Section 3: Learning from Teens and Toddlers**

Respondents were asked to list the “most important thing(s) they had learned” from undertaking the Teens and Toddlers programme through an open-ended question. Responses were aggregated into 11 themes that were consistently reported. Table 3 details the themes and provides percentages that indicate the prevalence of themes among respondents. Note that percentages do not sum to 100% as multiple responses were allowed.

The theme that was reported most often by respondents (58%) was an awareness of the high level of responsibility and hard work that is associated with having a child. More than one third of the respondents listed sexual responsibility (38%) and the importance of the right timing to have a child (36%), as the most important things they learned from the programme. Other themes reported by a smaller number of respondents are listed in Table 3.

Table 4 provides examples of feedback received from respondents, some of which was coded and reported in Table 3. These examples provide an overview of the type of comments offered by respondents and present their generally positive view of the programme.

<b>Theme</b>	<b>% occurrence</b>
High level of responsibilities (hard work) with having a child	58
Safe sex and contraception, sexual responsibility	38
Have a baby at the right time (right timing)	36
Children development	27
Awareness of children as “people”	18
Prepare before having a child (financial, education, etc.,)	12
Learned communication skills	16
Respect for life	12
Effect of drugs on developing baby	12
Anger management	10
How to work in a team	11

**Table 4: Examples of respondents' answers to open ended questions**

No.	Quotation
1.	<i>"I used to think that the best time to have a baby was young and when I wanted to, but after doing T&amp;T I understood that the best time to have a child is when I can give the child everything it would need. I always put myself first, but it is about the child."</i> Female, 16 years
2.	<i>"I think that the teens and toddlers programme should be extended to boys and girls in every school during secondary school to enable them to broaden their knowledge about life."</i> Female, 17 years
3.	<i>"I learnt that children are the most important people in the world and you shouldn't have them at a young age because you probably won't be financially secure to support them."</i> Male, 16 years
4.	<i>"That everyone has a lot of potential and to have a child so young of age could slow your potential down by so much."</i> Female, 15 years
5.	<i>"Before I wanted kids at the age of 16-18 but now I've seen how demanding toddlers are I think I'll wait another 5-6 years."</i> Female, 16 years
6.	<i>"Getting pregnant at an early age is not the answer because there are too many responsibilities that children need to be cared for."</i> Female, 18 years
7.	<i>"That having a child is hard work so you need to be responsible to have a child. Even though it was fun being with the children I wouldn't be able to have a child at my age."</i> Female, 16 years
8.	<i>"I liked the welcoming of the staff and the children, my facilitator was great to talk to."</i> Male 17 years

## Discussion

The results broadly indicate that the Teens and Toddlers programme is effective in its aim to minimise adolescent pregnancy conception rates and positively influence the attitudes that young people have related to teenage pregnancy and sexual behaviour.

The finding that only one respondent reported having become pregnant since undertaking the Teens and Toddlers programme, and that this occurred some three years later when the respondent was infact over 19, is good evidence of the programmes positive efficacy. The highly "at risk" nature of the participant group would normally imply predictions of less favourable results. Obviously there are always questions to be asked about those participants that did not respond to the survey and therefore reveal their pregnancy status. However, the response rate of 47% is actually very acceptable for this sort of survey study

and given the positive nature of the relationship between participants and the organisation that delivers Teens and Toddlers, there is no reason to believe that respondents who had conceived would not have responded.

On the issue of response rate, and in relation to future studies, it should be noted that it is often very difficult to "track" teenage respondents from disadvantaged backgrounds. The population can be quite transient and for variety of reasons can also be reluctant to "be tracked". The COUI organisation asks participants to supply home addresses when they begin the programme. Due to data protection considerations, COUI cannot attempt to gain more recent information from other sources. Therefore it was the address given by participants at the time they undertook the Teens and Toddlers programme (for some participants nearly three years ago) that were used for the distribution of surveys.

A small number of surveys were returned unopened, implying that the participant was no longer at that address, but the number of surveys that were sent to an old address and never received by Teens and Toddlers graduates is unknown. The issue of tracking graduates for long periods will be a burgeoning issue for COUI.

The main aim of the Teens and Toddlers programme is to prevent teenage pregnancy by encouraging young people to postpone conception through responsible sexual behaviour, truly understanding the issues and responsibilities associated with becoming a parent, and planning alternative goals for their lives. It does seem that the programme achieves this aim. With 90% of respondents reporting that they felt undertaking the Teens and Toddlers influenced them to increase the age at which they would choose to become parents (49% reported it effected them “a little”, 42% reported it effected them “a lot”), there is strong evidence that at least at an attitudinal level participants in Teens and Toddlers programmes do experience the proposed intent of the programme.

This is supported by the findings that more than 85% of respondents reported that they felt the ideal age to become a parent was 22 or older, and 43% reported the ideal age would be over 25. Further, in a small sub-sample, a statistically significant difference existed in pre-programme and post-programme measures. Coupled with the finding that none of the respondents actually reported a pregnancy under the age of 18, strong evidence exists for the efficacy of the programme. Teens and Toddlers also appears to have the desired effect on influencing sexually responsible behaviour, with over 70% of respondents giving it the highest rating possible in reporting how Teens and Toddlers influenced their practice of safe sex and contraception use.

The three most important themes that respondents reported they had learned from the programme were the high level of responsibilities associated with having a child, the need for safe sex and contraception, and the importance in planning the right time to become a parent (Table 3). These themes essentially describe the main aim of the programme, which is very good evidence of its effectiveness in conveying its aims to young people. It was also impressive to note that 85% of respondents felt that the programme was a very positive influence in their lives. Further, the fact that 83% of respondents gave

Teens and Toddlers the highest rating possible when considering whether it would be a useful programme for their peers to also undertake, is perhaps the greatest evidence of the value that respondents felt they had gained from the programme. It is important to note that young people, particularly the “at risk” group that Teens and Toddlers works with, are not generally so warm in their praise for programmes that are designed to change their attitudes and behaviour.

The secondary aims of the Teens and Toddlers programme that are focussed on improving future parenting skills, increasing emotional literacy and fostering citizenship skills (Table 1). While much more difficult to assess and quantify than teenage pregnancy (i.e., you are either pregnant or you are not), it does appear from the information gained in this study that progress is also made in these areas. The themes expressed in Table 3 and examples cited in Table 4 are evidence of this.

Participants clearly expressed a greater understanding of the responsibilities associated with becoming a parent and raising a child, the need for planning and timing for having a child, and an understanding of child development as learning outcomes. These findings are evidence that they might become better parents in the future. Further, the finding that respondents reported having learned communication skills and learned to appreciate the uniqueness of each child (“learned to see children as people”), and the fact that some participants listed anger management and working as part of a teams as learning outcomes, could be attributed to the domains of emotional literacy and citizenship. While more specific and sequential research is required to clarify these findings, the evidence suggests that the Teens and Toddlers programme makes at least some contribution in these areas.

The differences in response patterns within the sample were moderate. On most issues participants tended to respond in the direction that would indicate that Teens and Toddlers is a successful intervention. Where the sample could be differentiated the findings are interesting. For example, females felt Teens and Toddlers affected them more than males in increasing their decision about the age at which they would choose to have children. While there were more females than males in the sample, the proportional difference was controlled for in the analysis. Therefore this finding suggests that females experience more

of a shift in their thinking than males about when they would want to become mothers, which can be attributed to their participation in the Teens and Toddlers programme. As females ultimately decide about whether a pregnancy is delayed or prevented, this finding is in fact very positive.

Respondents from the “black/asian” group proposed an older ideal age to become a parent than did the “white” group. While it is difficult to reliably interpret this finding without more specific information, it could simply be that the programme has greater impact for people from different ethnic groups. Many potential reasons exist that could explain this, including the strength of culturally based belief systems about the right age to become a parent that are valued by different ethnic groups. It would be interesting to analyse the findings of a pre-test and post-test experimental design, that asked about ideal age to become a parent, to see if this trend persisted.

The other main finding was the trends that were observed for age and the time since respondents have taken the Teens and Toddlers programme. These effects were particularly strong for how useful respondents felt the programme would be for their peers. It should be noted that while the time since a programme and age are undoubtedly related, participants undertake the Teens and Toddlers programme at different ages, so age does vary. Consequently it is suggested that as participants mature and reflect back on their Teens and Toddlers experience, the programme seems to be more valuable and useful. Again, this is further evidence for the efficacy of Teens and Toddlers.

In order to make reliable and predictable judgements about the value of the Teens and Toddlers programme more extensive quantitative research is required. For example, efforts should be made to develop reliable and systematic measures of participants’ attitudes and behaviours both before and after taking the Teens and Toddlers programme, with regular follow-up of graduates as they mature. As mentioned earlier, the tracking of graduates is expected to present a substantial challenge for the organisation. Additionally, qualitative research that focuses on gaining deep understanding of the perceived benefits and effects of the programme for participants would be beneficial in providing an insight to the programmes efficacy.

## Conclusion

These analyses have demonstrated that the Teens and Toddlers programme can address the issue of teenage pregnancy successfully with disadvantaged and socially excluded groups. Teens and Toddlers appears to differ from many other adolescent pregnancy intervention programmes because it does not advocate an abstinence or “just say no” model. Rather, it engages with young people by providing a hands-on, experiential programme where young people are encouraged to think through the implications of unprotected sex and make their own decisions about the age at which they choose to become a parent. While further evidence is required, the findings so far suggest that this approach is very effective both in influencing young people’s attitudes and actually preventing pregnancy.

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