

Teen pregnancy

A program for awareness and health education



BACKGROUND Baby Think It Over® is a health program that provides Perth adolescents in metropolitan schools with a 'virtual' parenting experience using an infant simulation program. Baby Think It Over seeks to modify attitudes toward teen pregnancy and parenting and to delay pregnancy until the participants have a better understanding of the demands and responsibilities of caring for an infant. At the same time, this program provides an opportunity to introduce adolescents to health services within their community with a particular focus on general practice.

OBJECTIVE This article describes the methodology and qualitative assessment of the program, examines some outcomes associated with its uptake and lessons learnt in its implementation.

DISCUSSION The program demonstrates that divisions of general practice can work together with schools to deliver innovative programs. The value of projects like this is in the community partnerships and social capital that they build across the health and education sector.

In 1998, the Osborne Division of General Practice (ODGP) in Western Australia identified youth health as a priority area and allocated funds to the establishment of a youth health program. The ODGP established communication with local schools concerning the health needs of younger people. Two projects in schools resulted; the first was a program of general practitioners providing health education on a range of topics including contraception, sexually transmissible infections and stress management. The second, in view of the high levels of sexual activity in young people, was concerned with prevention of adolescent pregnancy because of its association with poor outcomes: low birth weight, higher mortality, bottle feeding, lone parent family, poverty, child abuse, neglect, difficulties at school, poor housing and nutrition, and daughters of teenage parents higher likelihood of becoming teenage parents themselves.^{1,2}

A recent report in Australia shows that sexual activity among young people has increased in Australia over the past decade.³ Despite falling birth rates, a high level of confidence in saying 'no' and insisting on condom use, 6% of young people reported having sex that resulted in pregnancy.³ Similarly in the United Kingdom, while birth rates have fallen in this age group, one in two pregnancies result in abortion.⁴ The purpose of the Baby Think it Over® (BTIO) program was to:

- provide young people with an opportunity to experience parenting and its responsibilities, and
- facilitate young people's access to general practice and other local health services.

More specifically the program was designed to help



Brandi McCormack,

BSc, is Research Officer, Osborne Division of General Practice, and School of Psychiatry and Clinical Neurosciences, the University of Western Australia.
brandim@odgp.com.au

Moir G Sim,

MBBS, FRACGP, FACHAM, is Associate Professor, Edith Cowan University, Adjunct Senior Clinical Lecturer, School of Psychiatry and Clinical Neurosciences, the University of Western Australia, Senior Medical Officer, the Drug and Alcohol Office of Western Australia, and a general practitioner, Yokine, Western Australia.

young people understand the following characteristics of infants:

- the unpredictability and immediacy of demands
- the extent of time and attention required, and
- the profound impact on a parent's life.

The program also aimed to educate young people about the emotional and financial difficulties of becoming a parent at a young age. Students examined the income necessary and expenses involved with living out of home and explored the impact of having a baby. The program created the opportunity to discuss contraception, sexually transmitted infections, nutrition, and access to a general practitioner. It taught them how to access the health system, thereby facilitating access to early advice and health care.



Figure 1. ODGP youth health officer with 'virtual infants'

Using the infant's '6 week check' as a reason to visit a general practice, young people were encouraged to see a designated 'youth friendly' GP. This was an opportunity for young people to access a GP, often for the first time without a parent or guardian and to map out pathways through the health care system. Trained GPs encouraged young people to ask questions and provided information with the aim of increasing their confidence in accessing health care.

The program was implemented in partnership with schools where the main component of the program took place. Schools provide a captive population of young people and increasingly seek to promote health information and healthy lifestyles to their students.

The BTIO program

Recruitment and participants

The ODGP youth health officer invited 20 high schools located within the boundary of the division to participate in the program; 13 expressed an interest. From consenting schools, selected classes were identified. Interested students required parental consent before entry into the program. *Table 1* lists the 'adoption' process.

The 'infants'

The Baby Think It Over virtual infant was developed in 1993 by Rick Jurmain.⁵ Nine life size vinyl infant simulators were used, each weighing 3.6 kg and resembling a 6 week old infant (*Figure 1*). The students were equipped with a pram, baby blanket, and a nappy bag that contained cream, powder, wipes, and other baby supplies to make the child rearing experience as realistic as possible. These 'virtual infants' required feeding, burping, nappy changing and comforting. Battery operated microcomputers simulated an infant's realistic cry at random intervals of 15 minutes to 6 hours, 24 hours a day, indicating the need to be fed or comforted. Like real infants, they responded to rough handling or the need for attention by crying.

Feeding was simulated by inserting a plastic key in the 'infant's' back and holding it in place for up to 35 minutes. A key to disarm the infants was attached to the student's wrist, making them totally responsible for the care of the infant. The microcomputer recorded information on the quality of care provided such as the number of times the 'infant' was neglected. Tampering with the microprocessor was also recorded.

Pre-adoption

Pre- and post-adoption questionnaires were administered in order to assess students' attitudes and behaviours before and after the virtual parenting experience. A student workbook provided useful information such as the availability of local health and community services. Students also completed a diary, documenting their feelings and reactions to the parenting experience.

Students were instructed to make an appointment with one of the 17 ODGP youth friendly GPs. The GP consultation was a 'mock' 6 week postnatal check, and the opportunity was used to discuss aspects of the infant's health and the 'parent's' emotional and physical wellbeing. Discussion topics also included contraception, sexually transmitted diseases, and drug and alcohol use. Once GP appointments were made, students were

given their infant simulator for 4 consecutive days.

Postadoption

Upon completion of the virtual parenting experience, students returned the 'infants' and completed the postadoption questionnaire. Students then attended a one-on-one debriefing session with the youth health officer. The session provided an opportunity to discuss the computer reading from their infant microprocessor, the student's ability to cope with the 'infant', self monitored changes, and any issues related to the experience. Specific feedback was sought from students about the program, their family's reaction to the program, and their appointment with the GP. Parents of participating students were also asked to complete a postadoption questionnaire about the impact of the virtual infant on the family.

A group debriefing session was also held in the classroom setting to discuss any common issues and to provide a forum for further comment or questions. Interviews of youth friendly GPs by the youth health officer comprised the last evaluation component.

Program outcomes

A total of 696 students from 13 high schools (out of a possible 20) within the ODGP boundary took part in the BTIO program. Eighty-nine percent of students completed both pre- and post-adoption questionnaires. Student ages ranged from 12–18 years (mean 15.3 ± 0.79). The majority of students were in year 10 (26%) and year 11 (62%).

At the time the program commenced, none of the participating students reported being parents. However, 46% of students reported knowing a teenage parent, with the majority (57%) reporting it being a friend. The majority of young people wanted to have children before (84%), and after (77%) the program. However, the desired age for having their first child increased by 1.5 years (23.4 to 24.9 years).

Of the students who participated, 44.5% attended the GP consultation. All of the students who attended the GP consultation reported that the doctor had answered their questions in a way that they understood. Ninety-eight percent had no suggestions on what the doctor could have done differently while 2% stated that they would have liked the GP to pay a little bit more attention to the infant. Finally, all except seven students reported they would feel comfortable seeing the doctor again. Of the exceptions, four preferred their own doctors, two preferred to see a woman doctor, and one student knew the doctor on a personal level.

Table 1. Process of adopting the 'virtual infant'

School selection

- By invitation
- Consenting school identifies appropriate classes to whom the program is presented

Student selection

- Students self identify from selected classes
- Parental consent is obtained before entry to program

Pre-adoption

- Pre-adoption questionnaire
- GP appointment arranged for mock '6 week check'

Adoption

- 'Virtual infant' adopted for 4 days with baby equipment
- Workbook, diary and useful information given

Postadoption

- Postadoption student questionnaire
- One-to-one debriefing session
- Class group debriefing session
- Postadoption parent questionnaire

The majority of parents who provided feedback believed participation in the program had been beneficial (85%) and their child had a more realistic idea of parenting after the program (89%). Many of the parents felt that the experience could help avoid future unplanned pregnancy. There were mixed views as to the appropriate length of time for the student to use the infant, with most parents reporting 3–4 days were optimal.

Discussion

Several changes have been made to the delivery of the original program. As the introduction of young people to GP services was one of the key aims of the program, an investigation was made into the low percentage of students (44.5%) attending the GP visits. It identified that the major barrier for young people related to access to GPs not located within walking distance of schools or connected to a bus route. When transport was possible, some students had difficulty obtaining an appointment on the days they had the virtual infants. In response to these issues, the surgery visits have now been replaced by school attendance of participating GPs who speak with students in their classrooms. The visits provide an opportunity for the provision of health information, questions and dialogue.

The uptake of the program for years 8 and 9 was very low (3%) and students frequently damaged the simulated infants and/or the equipment and did not appear to take the program seriously. It was considered more appropriate to offer the program exclusively

to years 10 through 12.

The division has purchased two new demonstration virtual infants for classroom presentations. One of the virtual infants has been drug exposed and simulates a drug addicted infant, the other has fetal alcohol syndrome. These new 'infants' demonstrate the physical and demeanour differences when compared to 6 week old infants without these challenges. These infants create further opportunities for education and discussion.

Overall, can we say that the ODGP BTIO program has been an initial success? Baby Think It Over has received a high level of support from the community of parents, teachers, and GPs. Due to the programs popularity ODGP has recently increased the number of simulated infants from nine to 12 and the demand continues to grow.

The expertise gained in working with schools in this particular area has helped us to form a new research partnership. The Institute of Child Health Research in Perth is currently undertaking a large scale research evaluation of several components of the BTIO program.

Conflict of interest: none declared.

References

1. Koniak-Griffin D, Turner-Pluta C. Health risks and psychosocial outcomes of early childbearing: a review of the literature. *J Perinat Nurs* 2001;15:1-17.
2. As-Sanie S, Rosenthal MS. Pregnancy prevention in adolescents. *Am Fam Physician* 2004;70:1517-24.
3. Smith A, Agius P, Dyson S, Mitchell A, Pitts M. Secondary students and sexual health 2002. The 3rd National Survey of Australian Secondary students, HIV/AIDS and Sexual Health. Melbourne: La Trobe University, 2003. Available at: www.latrobe.edu.au/cleu/sexual_health.htm.
4. Swan C, Bowe K, McCormick G, Kosmin M. Teenage pregnancy and parenthood: a review of reviews. Evidence briefing. 1st ed. London: NHS Health Development Agency, 2003. Available at: www.hda-online.org.uk/evidence.
5. Baby Think It Over, Inc. Eau Claire, Wisconsin, USA. Available at: www.btio.com.

Email: afp@racgp.org.au

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