Baby simulator program may make teenage girls more, not less, likely to become pregnant
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A teenage pregnancy prevention programme involving a baby simulator does not appear to have any long-term effect on reducing the risk of teenage pregnancy, according to the first randomised controlled trial to test the effectiveness of this intervention, published in The Lancet today. In fact, the study found that teenage girls who took part were more, not less, likely to become pregnant compared to girls who did not take part. Similar programmes are reportedly delivered in 89 countries, and the authors of this Australian trial warn that the intervention is likely to be an ineffective use of public funds to prevent teenage pregnancy.

The Virtual Infant Parenting (VIP) programme is an Australian adaptation of the US programme RealityWorks (often referred to as “Baby Think It Over”). Intended as a pregnancy prevention programme, the VIP programme is delivered in schools and includes educational sessions (eg, the impact of not smoking, drinking or taking drugs on a healthy pregnancy, good nutrition, the financial costs of having a baby, sexual health, contraception, and respectful relationships), a workbook, watching a video documentary of teenage mothers talking about their experiences, and caring for an infant simulator over the weekend. The infant simulator is a doll that cries when it needs to be fed, burped, rocked or changed and measures and reports on mishandling, crying time, the number of changes and general care.

The use of infant simulator programmes is common in developed countries and their use is increasing in low and middle income countries. Despite this, there is no robust evidence of their effectiveness. While some studies have looked at the effect on girls' intentions to get pregnant, or attitudes to pregnancy, no randomised trials have objectively measured the impact on pregnancy.

A total of 57 schools in Western Australia took part in the study. Schools were randomly allocated to receive either the VIP programme (1267 girls), which is delivered by school nurses over 6 consecutive days, or to receive the standard health education curriculum (1567 girls). The researchers then linked this information to data from hospital records and abortion clinics. All girls were aged 13-15 at the start of the study and they were followed until the age of 20.

Compared to girls in the control group, girls enrolled on the VIP programme had higher rates of pregnancy and abortion. 8% (97/1267) of the girls in the intervention group had at least one birth, compared to 4% (67/1567) in the control group. Similarly, 9% (113/1267) of girls in the intervention group had an abortion, compared to 6% (101/1567) in the control group.

"Our study shows that the pregnancy prevention programme delivered in Western Australia, which involves an infant simulator, does not reduce the risk of pregnancy in teenage girls. In fact, the risk of pregnancy is actually increased compared to girls who didn't take part in the intervention" says lead author Dr Sally Brinkman, Telethon Kids Institute, University of Western Australia, Adelaide, Australia. "Similar programmes are increasingly being offered in schools around the world, and evidence now suggests they do not have the desired long-term effect of reducing teenage pregnancy. These interventions are likely to be an ineffective use of public resources for pregnancy prevention."

The authors say that the study included a large number of teenagers, but caution that the overall participation in the study was quite low (45% in the control schools and 58% in the intervention
schools), so there is no information about the girls who chose not to enrol. However, they say that participation in this type of intervention is voluntary in Australia, so the girls who did take part are likely to be an accurate reflection of those who would normally do so (eg, outside a trial). They also note that girls in the control group had on average a higher socio economic status and educational attainment, but when the research team re-ran the analysis to take these factors into account, they found that this had no effect on the findings.

Writing in a linked Comment, Professor Julie A Quinlivan, University of Notre Dame Australia, Fremantle WA, Australia, discusses the possible reasons why the intervention does not work. She says: "The cure for teenage pregnancy is more difficult than a magic doll. We have to address both mothers and fathers. Programmes need to start in infancy. Investment in vulnerable children is needed to entice these adolescents from the path of premature parenthood into brighter futures. We cannot afford the quick fix, especially when it doesn't work."


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