

Community-based program helps moms in poorer countries improve babies' brain health

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Credit: Monash University

A program of facilitated, community-based groups to teach women and their partners from pregnancy until the baby is one about nutrition,

sensitive caregiving, play, first aid, health and avoiding family violence has been shown to improve the brains of these women's children. The children have significantly better cognitive, language and motor development at the age of two than those whose mothers had usual health care.

In many ways a child's first 1,000 days—from conception to the age of two—determines the rest of their lives. In low- and [middle-income countries](#), it is estimated that more than 250 million [young children](#) do not reach their developmental potential annually.

The world first Learning Clubs program led by Monash University was trialed among women living in rural communes in Vietnam. In 2018, the trial recruited 1,253 women less than 20 weeks pregnant living in 84 communes in Ha Nam Province in Vietnam.

Half the communes were allocated randomly to receiving only usual [health](#) care and half also provided Learning Clubs. Women living in the Learning Clubs communes were taught how to reduce eight major risks to early childhood development: [intrauterine growth restriction](#), stunting, iron deficiency anemia, iodine deficiency, unresponsive caregiving, insufficient cognitive stimulation, maternal mental health problems and [family violence](#).

Learning Club sessions were facilitated by members of the Women's Union, a national mass organization, with the support of a commune health worker and a kindergarten teacher. They used short talks, videos, hands-on practice, role play and discussion of common problems in sessions and families were given summaries on posters for take home discussion.

The program was offered from mid-pregnancy to 12 months postpartum. There were 19 group meetings and a home visit in the first weeks after

birth. The cognitive, social, motor and language development of children in both groups was tested when they were 2 years old.

The Learning Clubs aimed to teach the participants—through increasing their knowledge and building skills, how to change behaviors. These included women's self-managed health promotion and health care participation, caregiving capabilities, and sensitivity and responsiveness to their infants, and men's provision of care and avoidance of controlling behaviors towards their wives, their participation in household work, and caregiving for their infants

The project was led by Professor Jane Fisher, from the Monash University School of Public Health and Preventive Medicine and is published in *The Lancet Child & Adolescent Health*. It is a collaboration involving colleagues from Vietnam, Australia, Zimbabwe, the U.K., Belgium, and UNICEF in the U.S.

According to Professor Fisher, the eight major risks to early childhood development "... are prevalent globally, but women in low- and middle-income countries who are pregnant experience malnutrition, poverty, gender-based violence, mental health problems and inadequate access to health and [social care](#), at higher rates than women in high-income countries do," she said.

Because physical growth and neurological development is rapid in the first 1,000 days of life, these risks have lasting life-course effects, she added. While prior interventions have addressed one or two risks, none to date have addressed all eight



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Overall, in the Learning Club cohort:

- 75% eligible women participated in at least half the sessions
- 98% had a home visit in the first postpartum month

A third of men participated in at least one antenatal and 55% a postnatal session. One in five grandmothers participated in at least one antenatal and 75% a postnatal session.

The study found that the benefits to children's development were apparent even though there were no differences in the children's height

and weight between the two arms of the study.

There were significant differences in areas that were relevant to the outcomes:

- more parents were sensitive to their infant's developmental needs to explore and be given age-appropriate cognitive stimulation using homemade play materials;
- parents were more responsive to their children's cues and likely to engage in mutually enjoyable social interactions
- more parents had established daily routines that incorporated social interactions with others and activities inside and outside the house.

These differences between trial arms were apparent when the children were aged one, and, despite the program being completed at that age, the differences in caregiving and the home environment were maintained and increased in being more responsive, in the child's second year.

According to Professor Fisher the study found that one of the key components of the Learning Clubs was promoting gender empowerment and reducing gender-based violence. "Changes in men's involvement in family life are yet to occur in most low- and middle-income families, attributed to traditional beliefs that pregnancy and birth are quintessentially feminine activities, and that men cannot care for young children," s/he said.

"The Learning Clubs emphasized the benefits to women's health of a relationship with the intimate partner characterized by commitment to the pregnancy, and later, the infant, and appear to have been effective in increasing gender equity reflected in men's participation in household work and infant care in the early weeks, and six and twelve months postpartum."

This promising program can be applied in other low- and middle-income countries to improve the development of very young [children](#) and set them on better life trajectories. It also has potential to assist families in low socioeconomic positions in high-income countries like Australia.

More information: Jane Fisher et al, Structured, multicomponent, community-based programme for women's health and infant health and development in rural Vietnam: a parallel-group cluster randomised controlled trial, *The Lancet Child & Adolescent Health* (2023). [DOI: 10.1016/S2352-4642\(23\)00032-9](#)

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