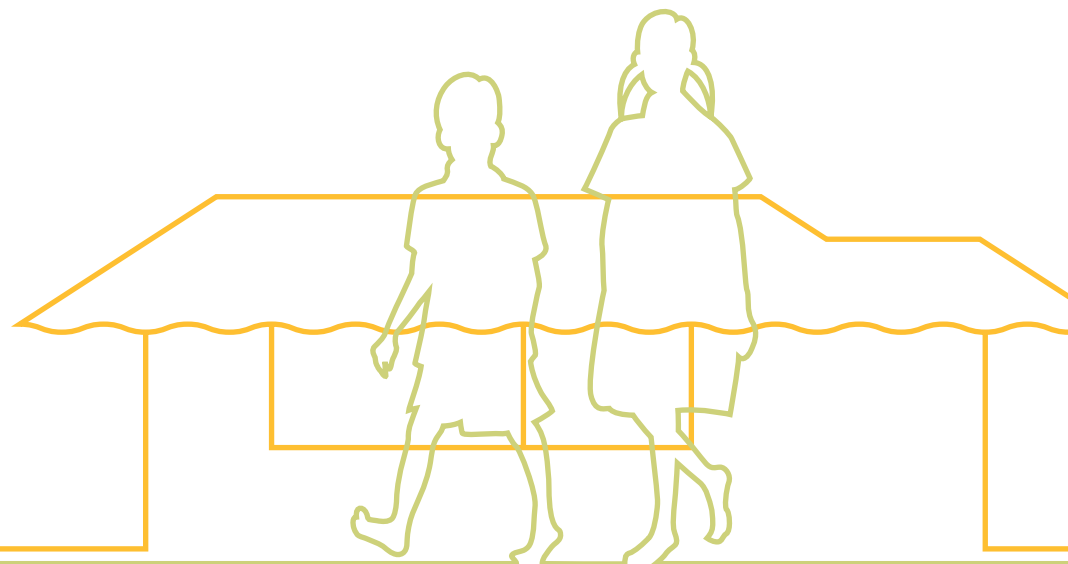# Effectiveness of the sex education curriculum in decreasing adolescent pregnancy risk situations

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Research purpose

In a study carried out by UNESCO (2017) it is suggested that gender violence has a direct relationship with adolescent pregnancy, and in another study carried out by the same entity (UNESCO 2018), It is affirmed that a comprehensive sex education decreases exposure to the risk of this situation in adolescents. However, this correlation occurs differently depending on the socio-cultural context in which it occurs. For example, while in sub-Saharan Africa and Southeast Asia early pregnancy occurs within marriage, in Latin American countries and the Caribbean, pregnancy in adolescents between 12 and 19 years manifests mostly outside the marriage. Therefore, the success of a curricular plan in sex education will depend on how gender-based violence in a particular cultural and school context is identified, interpreted and transformed.

Thus, the purpose of this research was to investigate through a randomized controlled trial, the effectiveness of the sex education curriculum based on the prevention of gender violence and the promotion of human, sexual and reproductive rights, to reduce exposure to the risk of early pregnancy in 10th grade students.

The research design

A between-participant design was used with a pre-test and a post-test (Figure 1). The independent variable (IV) 'sex education curriculum based on the prevention of gender violence and the promotion of human, sexual and reproductive rights' was defined by creating two conditions.

- **IV Level 1 (Control)** Traditional sex education classes based on abstinence and biology.
- **IV Level 2 (Intervention**) Comprehensive sex education based on prevention of gender violence and the promotion of human, sexual and reproductive rights.

Dependent Variables (DVs)
- **DV1** Standard test of 30 questions that measures levels of exposure to early pregnancy.
- **DV2** Percentage of students accessing methods of fertility regulation, student counselling for gender violence and sexual and reproductive health.

FIGURE 1: RESEARCH DESIGN

PARTICIPANT GROUP
Randomisation

Pre-test · Post-test · Pre-test · Post-test

CONTROL · INTERVENTION
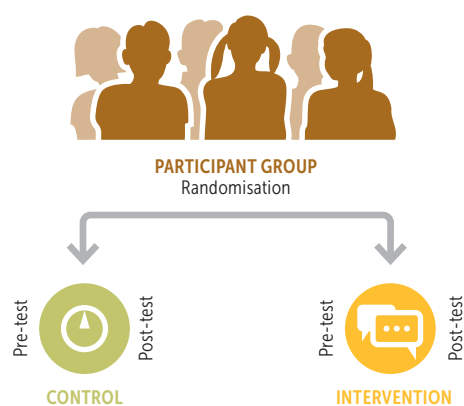
Methods

Participants, sample size and randomisation
The participants were 164 10th grade students from the Gerardo Paredes School in Bogotá Colombia, who were randomly assigned to control and intervention groups through the simple randomization process. The characteristics of the students are varied, including 6 learners with special educational needs.

Procedures
At the beginning of the learning period, all the students from control and intervention groups completed a pre-test that measured the exposure to risk situations of early pregnancy. Then 10 didactic sequences or classes were applied to the intervention group using comprehensive sex education based on the prevention of gender violence and the promotion of human, sexual and reproductive rights. Meanwhile, the control group received 10 traditional classes based on abstinence and biology.

Afterwards, a 30-question post-test was applied, which again measured the exposure to situations of pregnancy risk. In addition, the percentage of students who autonomously requested counselling services on sexual and reproductive health at the school, such as access to methods of fertility regulation, was quantified.

Materials (and apparatus)
- Pre-test (30 questions).
- Post-test (30 questions).
- Register form counselling on sexual and reproductive health.
- Register form school assistance to victims of violence based on gender.
- General plan of subject.
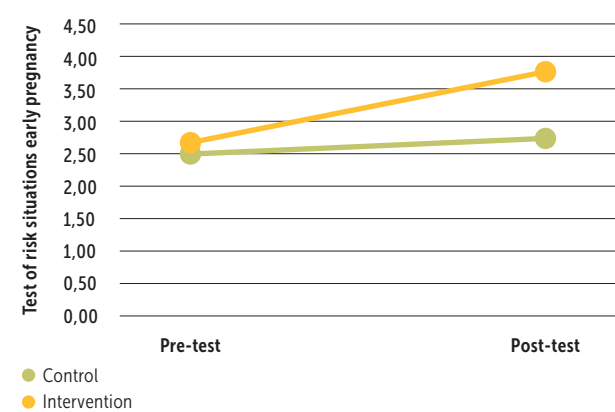- Didactic units.

Limitations

A number of contextual factors could have had an effect on the results. The ethical and moral position that the teacher has about sexuality issues can influence the way the curriculum could be developed in the class. The strong resistance that the family and Latin-American culture has about sexuality also negatively impacts the way in which the curriculum develops. The fact that sexual citizenship was introduced to the eighth-grade curriculum is a factor that could have influenced the results.

Results

Gain scores were first calculated using pre- and post-test results (Figure 2).

FIGURE 2: PRESENT STUDY PRE- AND POST-TEST RESULTS – DV1

Test of risk situations early pregnancy

4,50 / 4,00 / 3,50 / 3,00 / 2,50 / 2,00 / 1,50 / 1,00 / 0,50 / 0,00

Pre-test · Post-test

- Control
- Intervention

A one-tailed Mann-Whitney U test indicated that the intervention group had a significant (p = .001) large positive effect (r = 0.70) (CI (95%) = 0.28 – 1.12) on reducing the exposure to early pregnancy situations among students.

In the pre-test, students from control and intervention groups were asked for the number of times they had attended counselling services on sexual and reproductive health at the school. Then the number of students of each condition that requested these services in the 10 classes of the experiment was measured (Figure 3).

FIGURE 3. STUDENTS WHO ASKED FOR SEXUAL REPRODUCTIVE HEALTH SERVICES (CONTINGENCY TABLE) – DV2

	Control	Intervention	Total
Pre-Test	9	10	19
Post-Test	7	26	33
Total	16	36	52

A chi-squared test of independence indicated that the intervention was associated with a significant moderate positive effect (phi = 0.37) compared to the control ($X2 = 7.25$, $p = 0.0499$).

Conclusions and recommendations for future research

This research suggests that the implementation of a sex education curriculum (based on the prevention of gender-based violence (GBV), the promotion and exercise of human, sexual and reproductive rights, and the recognition of the socioaffective dimension of sexuality) improves a student's ability to recognize the risk situations of early pregnancy.

Future studies could replicate the design with larger sample sizes in other schools and adapting the curriculum to the specific context.

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