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# Sex education, first sex and sexual health outcomes in adulthood: Findings from a nationally representative survey.

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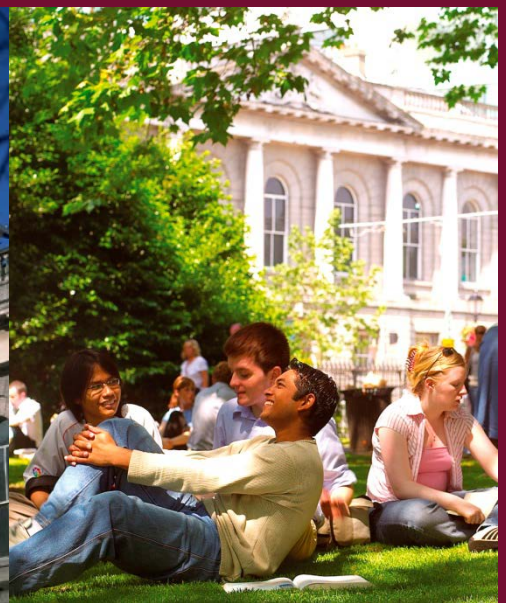
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## Sex education, first sex and sexual health outcomes in adulthood: Findings from a nationally representative survey

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# Project Aims

ROYAL COLLEGE OF SURGEONS IN IRELAND
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- ***Project title:*** *Exploring trends in sexual activity, contraceptive use, and pregnancy experiences in Ireland: a secondary analysis of national survey data from the last decade*

## *Two main questions we aim to answer...*

1. Is sex education effective in delaying first sexual intercourse and encouraging contraception use on this occasion?
2. Is receiving sex education related to sexual health outcomes/behaviours in later life and does the context of first sex have any role in this relationship?

# Definitions

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- ***Formal sex education*** **–** sex education received either at home and/or school
- ***Age of consent*** **–** in Ireland the age of consent is 17 years
- ***Early first sex*** **–** heterosexual intercourse before the age of consent
- ***Context of first sex*** **–** age and use of contraception at first sex
- ***Crisis pregnancy*** **–** a pregnancy that represents a personal crisis or emotional trauma for the individual

# Is early first sex common?

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- Average age of first sexual intercourse is similar across developed countries, approximately 17.5-18 years of age (Darroch et al., 2001, Hawes et al., 2010)



- **UK** – 30% of men and 26% of women had their first heterosexual experience prior to the age of consent in UK - 16 years (Wellings et al, 2001)

- **Ireland** – 28% of men and 17% of women had their first heterosexual experience prior to the age of 17 years (i.e., the legal age of consent) (McBride, Morgan & McGee, 2012)

# Why is early sexual activity a concern?

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- *Research indicates:*
  - a link between *early* first sexual intercourse and negative sexual health behaviours and outcomes in later adulthood
    - increased number of partners
    - inconsistent condom use
    - unintended pregnancy
    - diagnosis of sexually transmitted infections (STIs)

    (Coker et al., 1994; Sandfort et al., 2008)



  - In **Ireland**, early first sex has been linked with
    - inconsistent contraception use in past year
    - experience of crisis pregnancy (Rundle et al., 2004)

# Is sex education effective?

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- *Research indicates:*
  - Receiving sex education while growing up:
    - ✓Delays timing of first sex
    - ✓Improves the likelihood of using contraception

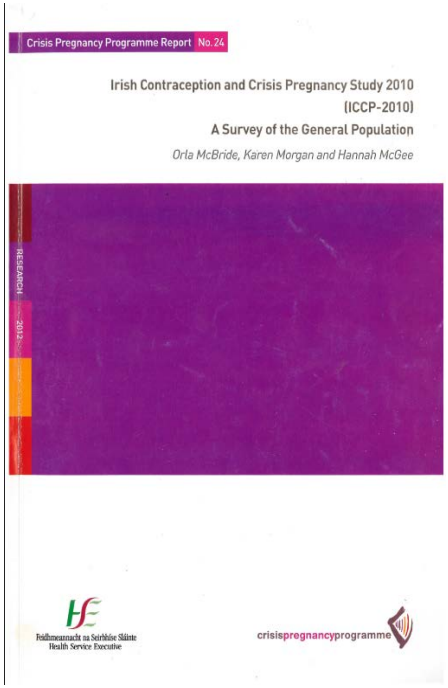
    on this occasion (Kirby, Laris & Rolleri, 2007; Mueller, Gavin & Kulkarni, 2008)




- Less consistent findings for a link between sex education and later sexual health behaviours
  - may be dependent on type of education (Yu, 2010)

- Relationship between sex education and longer term outcomes may operate through older age at the time of first sex (Lindberg & Maddow-Zimet, 2012)

# Survey: Irish Contraception and Crisis Pregnancy Study 2010 (ICCP-2010)




- Irish cross-sectional telephone survey of adults aged 18-45 years (n = 3002) (McBride et al, 2012)
- Designed to assess knowledge, attitudes and behaviours in relation to sex, contraception and pregnancy
- Quota sampling i.e. sample representative of the general population
- Recruitment via mobile and landline telephones using random digit dialling (RDD)
  - 69% response rate

# Analyses

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❖ Research qtn 1: Multinomial regression

– Formal sex education
– Context of first sex
  - Age and contraception use

❖ Research qtn 2: Structural Equation Modelling

– Formal sex education & Context of first sex
– Adult sexual health behaviours
  - Contraception use in past year
  - History of STI testing
  - Experience of crisis pregnancy



# Results: Sex Education Profile

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- 70% (n=2123) adults reported receiving formal sex education




- 53% were women
- 63% received sex education from school and 32% in the home and 5% said both

**Research Question 1:**

Is sex education effective in delaying first sexual intercourse and encouraging contraception use on this occasion?

# Regression Analyses:
# Sex education and first sex

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- Multinomial Regression: 4 risk categories:

1. Before age 17: contraception not used (n=414) *(reference group)*
2. Before age 17: contraception used (n=397)

3. Age 17+: contraception not used (n=429)
4. Age 17+: contraception used (n=1758)

# Unweighted relative risk ratios from multinomial regression analysis explaining association between receipt of sex education and age and contraception use at first sex (n=2,998)

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| | Relative Risk Ratio | 95% CI | *P* value |
|---|---|---|---|
| Before 17 years: contraception not used (n=414) **(reference)** | ----- | ----- | ----- |
| ***Received sex education*** | | | |
| *Before 17 years: contraception used (n=397)* | 1.62 | 1.16-2.26 | .005 |
| *Age 17+ years: contraception not used (n=429)* | 0.90 | 0.66-1.21 | .471 |
| *Age 17+ years: contraception used (n=1758)* | 1.52 | 1.18-1.96 | .001 |

*Note*. Controlled for gender, current age, social class, current relationship status, education and religiosity.

# Summary: Sex education and first sex





- Sex education was significantly associated with increased contraception use for those who had sex before aged 17 years **(RRR=1.62, p<0.01)**

- Sex education was significantly associated with both older age at first sex and increased contraception use on this occasion **(RRR=1.52, p<0.01)**

**Research Question 2:**

Is receiving sex education related to sexual health outcomes/behaviours in later life and does the context of first sex have any role in this relationship?

# Structural equation modelling: Direct & indirect effects of sex education



- No indirect effects were found
- Formal sex education had a significant direct effect on:
  - **use of contraception during first sexual intercourse**

    ($\beta = .16$, $p < .001$)
  - **use of contraception over the previous year**

    ($\beta = .12$, $p < .01$)
  - **the experience of a crisis pregnancy**

    ($\beta = -.09$, $p < .01$)

- Formal sex education had no effect on STI screening

# Structural equation modelling: Direct & indirect effects of sex education



- Younger age at first sex was a significant predictor of:
  - **the experience of a crisis pregnancy** ($\beta = .08$, $p < .001$)
  - **STI testing** ($\beta = .08$, $p < .001$).

- Use of contraception during first sexual intercourse was significantly associated with:
  - **the use of contraception over the past year**

  ($\beta = .09$, $p < .001$)
  - **the experience of a crisis pregnancy**

  ($\beta = -.14$, $p < .001$).

# Summary of key findings

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- **Receipt of formal sex education** has a clear protective influence on the context of first sex and is also associated with
  - an increased likelihood of using contraception in last year
  - reduced likelihood of a crisis pregnancy




- The **context of first sex** influenced later sexual health behaviours:
  - Those **aged under17 years at first sex** were more likely have experienced a crisis pregnancy and to have had a STI test
  - **Use of contraception at first sex** was associated with an increased likelihood of using contraception in last year and the reduced likelihood of a crisis pregnancy



# Conclusions and implications

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1. Targeted interventions in terms of sex education should focus on:
    - Young people before they engage in first sex
    - The context of first sex i.e. Age and contraception use

2. Vulnerable groups at risk for *early* first sex should be a particular target for sex education e.g. early school leavers

3. Longitudinal and further cross-sectional research on the influence of sex education on sexual health behaviours in adulthood is merited, including whether age at first sex influences this relationship

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Health Service Executive

crisispregnancyprogramme

# Sex Education Questions: ICCP 2010

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- **B2a: Thinking about when you were growing up (about age 10-16 years) did you receive sex education on?**
  - Sex and sexual intercourse
  - Sexual feelings, relationships and emotions
  - Contraception
  - Safer sex/sexually transmitted infections

- **B2b. Where did you receive this education?**
  - Home
  - School
  - Other

# Structural equation of model of direct & indirect effects of sex education I

