Development of a theory and evidence based sex education lesson on *Chlamydia trachomatis* for secondary school pupils

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Objectives

The process of developing a relationships and sex education (RSE) lesson using empirical evidence and psychology theory is described. This RSE lesson targets risk perceptions for chlamydia amongst secondary school aged pupils. The project aimed to generate theory and evidence based learning outcomes on which to build an innovative and engaging lesson. The resource, developed in collaboration with the Health Protection Agency (HPA) e-Bug team, will be hosted on the educational website www.e-bug.eu

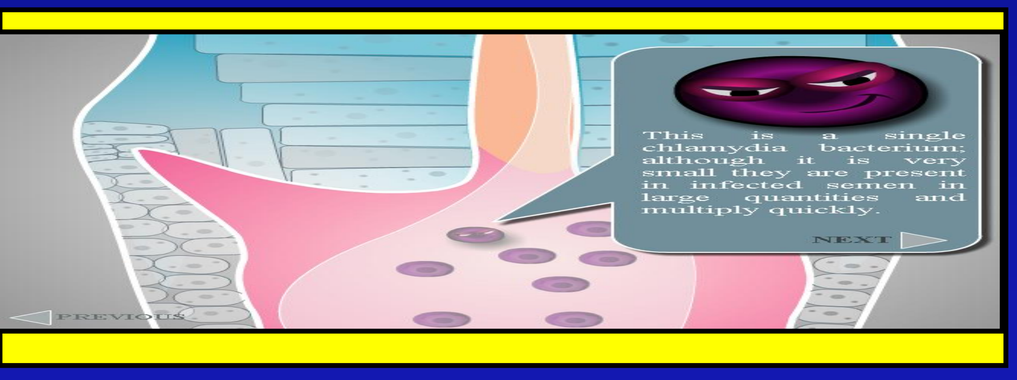
Rationale

The lesson specifically addresses concerns that young people have low risk perceptions for chlamydia. We investigated typical RSE lessons that aim to teach young people about Sexually Transmitted Infections (STIs). These lessons mostly consisted of naming STIs and identifying symptoms. Images of symptoms are also commonly used. Informing young people about these facts is useful BUT is unlikely to be effective in motivating positive sexual behaviour. Tackling this aim through RSE in schools is viable as evidence suggests sex education can have a positive impact on sexual risk taking and teen pregnancy (Kirby et al, 2007). Also this is a popular source of information on sex and relationships with young people (Newby, Wallace & French, in press).

Step 1: Examining the evidence base

Evidence suggests theory based sex education programmes are more effective (Kirby et al, 2007). Many theories of health behaviour identify risk appraisals as primary motivators of intentions/behaviour (e.g. health belief model, protection motivation theory) and meta-analyses suggest risk appraisals have small but significant association with intention/behaviour. This indicates that favourably changing risk perceptions for chlamydia could be effective in motivating condom use.

A series of studies examining young people's risk appraisals of chlamydia was conducted. A qualitative study (n=27; males & females; 18-24 years) aimed to improve our understanding of how young adults perceive the risk of chlamydia (Newby, Wallace & French, in press). A further qualitative study aimed to describe young women's beliefs regarding the role of chlamydia in causing infertility (Lord, Brown & Newby, in prep). Finally, a cross-sectional study (n=921; males & females; 16-24 years) aimed to examine how well risk representations of chlamydia predict risk appraisals and condom use intentions (Newby, French, Brown & Wallace, submitted). Data from these studies helped to inform the lesson.



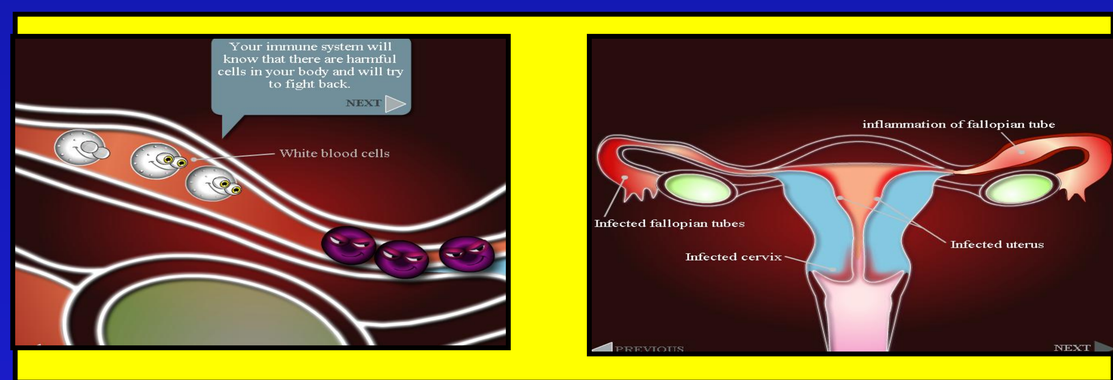
Step 2: Using Intervention Mapping technique to frame the intervention

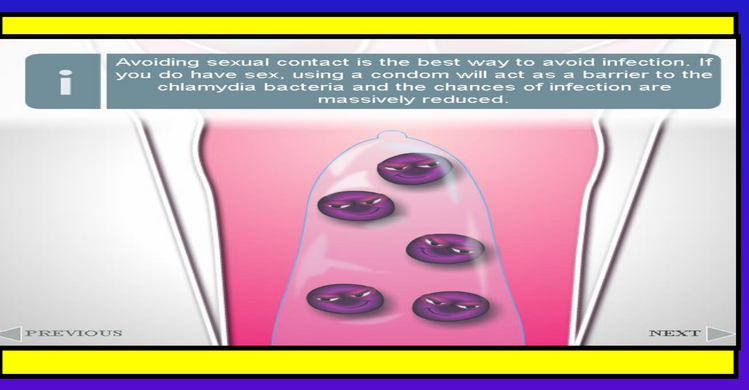
We used the process of Intervention Mapping (IM) (Bartholomew et al. 2006) to develop the lesson. This is a series of sequential and iterative steps applying multiple methods. The key characteristics of IM interventions are that they are:

- Grounded in needs of target audience
- Informed by theory and evidence
- Sensitive to environment in which they are to be embedded

Step 3: Reviewing current practice

We ran consultations with teachers (n=4) and young people (n=20) to assess the need for this type of lesson and to better understand what type of content and design would be most appealing. To supplement our own empirical evidence, we conducted literature reviews of young people's knowledge of chlamydia, chlamydia risk appraisals and the effectiveness of interventions to change STI risk perceptions. We also conducted a review of existing SRE lessons on STIs in order to learn from best practice. Using all of the feedback and evidence gathered we began to design our exercises.





Step 4: Taking the evidence and creating a lesson

Once the evidence base had been reviewed and a needs analysis had been conducted we identified what needed to change in order to modify risk appraisals. We then identified exercises incorporating behavioural change techniques that would achieve our objectives whilst being engaging and appealing to young people. The overall aim of our lesson was to motivate positive sexual behaviour through enhancing chlamydia risk appraisals and increasing condom use self-efficacy. We designed four exercises as part of our lesson. One of the exercises was a movie to show how chlamydia can affect the female reproductive system. Images from this movie are displayed on this poster. The movie specifically aims to provide young people with a coherent and common sense understanding of the link between unprotected sex, chlamydia infection and infertility.

Conclusions

- We have produced an evidence based SRE lesson which incorporates behaviour change theory
- The lesson responds to young people's criticisms of SRE (fun, engaging, interactive, reflects their world)
- Provides teachers with free 'off the shelf' lesson from credible source (The e-Bug website, Health Protection Agency)
- The team now intends to conduct an process and outcome evaluation of the lesson to determine whether it achieves its aims

References

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