

Sexual Health—Get Involved: A Kinesthetic Learning Experience of STI Transmission and Prevention [†]

Selina Patel and Anne Marie Krachler*

Institute of Microbiology and Infection, School of Biosciences, University of Birmingham, Birmingham, BI5 2TT, UK

INTRODUCTION

The Office for Standards in Education, Children's Services and Skills (OFSTED) repeatedly finds the teaching of sexually transmitted infections (STIs) in secondary schools 'inadequate' across the United Kingdom (3). There are thought to be a number of reasons for this, including the fact that staff teaching this topic feel inadequately prepared and not knowledgeable enough to do so (4).

In 2010, over half of newly diagnosed STIs in England were in patients aged 16 to 24 years (2). This could be the result of a lack of mandatory, quality sexual health education in schools, combined with larger-scale social issues. Young females, in particular, reported feelings of shame when visiting sexual health clinics, which on occasion may compel them to lie about their sexual history to a practitioner in order to protect a 'fragile sexual reputation' (1).

This session was developed to improve students' understanding of sexual health, and how different behaviors (protected vs. unprotected sex, regular visits to a sexual health clinic) affect the probability of STI transmission. Another aim of integrating information about the importance of regular sexual health check-ups into sexual health education in schools was to reduce the associated feelings of shame across the young female population. The activity was carried out with two classes of Year 12 students (16 to 17 years) in an independent school in the London borough of Lewisham. The session builds on education about STIs, which is part of the national science curriculum, and extends these concepts about transmission to the most common STIs prevalent within the population aged 16 to 24.

PROCEDURE

This activity is best suited for a class size of 20 students, and the materials listed below are sufficient for this class

size. The color of each card represents an associated STI (Fig. I) and the number of students with each color at the beginning of the activity represents the prevalence of the disease amongst the sexually active population in London aged 16 to 24 (2).

Materials

- 20 lanyards
- 17 blue cards, (7 cm × 8 cm), with a hole punched on the shorter edge in the middle, labeled "Not infected"
- 16 green cards (as above), labeled "Chlamydia"
- 8 orange cards (as above), labeled "Gonorrhea"
- 9 pink cards (as above), labeled "Tested"
- 9 purple cards (as above), labeled "Cured STI"
- 'CLINIC' sign (Scenarios 2 and 3)
- Sound system and choice of lively music
- 10 condoms (Scenario 3)

Preparation prior to activity

Blue cards are attached to one lanyard each. Two of the remaining lanyards must each have eight green cards attached and the last lanyard must have eight orange cards attached. The 'CLINIC' sign must be attached to a wall or desk in a way that indicates a sexual health clinic area, where

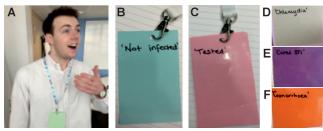


FIGURE I. A) Colored cards are labeled to illustrate what they represent, attached to a lanyard and worn around the neck by all participants. Colored labeled cards were used to indicate a participant is "not infected" with an STI (B), has visited the clinic area, was "tested," and was found to be clear of an STI (C), is infected with "chlamydia" (D), has visited the clinic area, was tested, and was then "cured of an STI" (E), or is infected with "gonorrhea" (F).

©2016 Author(s). Published by the American Society for Microbiology. This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial-NoDerivatives 4.0 International license (https://creativecommons.org/licenses/by-nc-nd/4.0/ and https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode), which grants the public the nonexclusive right to copy, distribute, or display the published work.

^{*}Corresponding author. Mailing address: Institute of Microbiology and Infection, School of Biosciences, University of Birmingham, Birmingham, BI5 2TT, UK. Phone: +44(0)121 414 7417. E-mail: a.krachler@bham.ac.uk.

[†]Supplemental materials available at http://asmscience.org/jmbe

pink and purple cards are kept (Fig. 2). The sound system must be readied to play music.

Activity

To start the activity, students are told that they are going to carry out a demonstration to illustrate the spread of STIs, with one lanyard given to each student at random (Fig. 1). The demonstrator explains that the proportions in which the cards are given out at the start of the activity is representative of rates of chlamydia and gonorrhea infection in those sexually active in England aged 16 to 24. These rates refer to approximately 10% of the sexually active 16- to 24-year-old population testing positive for chlamydia and around 3% testing positive for gonorrhea (3). Students are then asked by the demonstrator to stand up and spread out across the room. Music is turned on and students are asked to walk across the room, reflecting social settings leading up to sexual contact (Fig. 3). The activity is then played in three rounds, each ending by interrupting the music. Each round is carried out as follows:



FIGURE 2. A 'CLINIC' sign was attached at the front of the classroom to indicate the sexual health clinical area.

- When the music stops, students with green/orange cards remove half the cards from their lanyard and give them to an adjacent person. This is repeated for subsequent rounds.
- 2. In scenarios involving clinic visits (Scenarios 2 and 3), three random students are picked by the demonstrator to leave the group and visit the sexual health clinic area between rounds. At the 'CLINIC,' green or orange cards are exchanged for a purple (cured STI) card and students with a blue card only are given a pink (tested) card. Students then return to random positions in the group for the next round.
- 3. In Scenario 3 (Appendix 2), half the students are given a condom prior to the activity. Students in possession of a condom are 'protected' and cannot exchange cards throughout the scenario.

At the end of each scenario, people infected with Chlamydia, those infected with Gonorrhea, and uninfected people are counted and numbers are noted down. Following the activity, the demonstrator can further discuss common STIs and ways to recognize and treat them (Appendix I). The students should be encouraged to observe the impact of clinic visits and/or practicing safe sex on STI transmission.

CONCLUSION

The main aim of this activity is to engage students with a more inclusive picture of sexually transmitted infections and the risks associated with the choices that one can make when engaging in sexual activity. It works to get students to understand these risks (Appendix 3) and to inform them of the ways in which they can alter behavior to reduce the magnitude of such risks rather than to simply fear them on a less informed basis. This understanding is established through kinesthetic learning of statistics of STI transmission and a basic understanding of their chain of infection. It is hoped that understanding risk initiates a cycle of lifelong learning about responsible behavior regarding sexual health for a more effective means of reducing rates of STIs among young people.





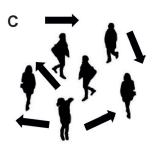


FIGURE 3. Participants move around the room, wearing the lanyards (A). After each "round," they pass any extra cards attached to their lanyards to an adjacent person, reflecting a "sexual encounter." Depending on the room layout, movement can either be in a circle (e.g., around a desk) (B) or across the room (C) to better reflect random encounters.

PATEL and KRACHLER: LEARNING ABOUT STIS

SUPPLEMENTAL MATERIALS

Appendix 1: Slide presentation (STIs and transmission)

Appendix 2: Instructor's notes
Appendix 3: Student survey results

ACKNOWLEDGMENTS

We thank all teachers who helped us facilitate the sessions described here, as well as the students for their participation. The authors declare that there are no conflicts of interest.

REFERENCES

- Fallon, D. 2012. They're gonna think it now: narratives of shame in the sexual health experiences of young people. Sociology 47:318–332.
- 2. **National Health Service.** 2014. Open your eyes to STIs. [Online.] www.nhs.uk/Livewell/Sexandyoungpeople/Pages/STIs.aspx. NHS Live Well. Accessed October.
- OFSTED. 2013. Personal, social, health and economic education needs improvement (Press release). [Online.] www.gov.uk/government/news/personal-social-health-andeconomic-education-needs-improvement. Accessed January 2016
- 4. **Westwood J. L., and B. Mullan.** 2007. Knowledge and attitudes of young people, teachers and school nurses regarding sexual health education in England. Sexual Educ. Sexuality Society Learn. **7**:143–159.