The development and evaluation of a peer education workshop for school aged children to teach about antibiotics, microbes and hygiene

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BACKGROUND INFORMATION

- The benefits of peer education are widely recognised and can include improvements in knowledge, skills, attitudes and confidence.
- Public Health England, in collaboration with the Forest of Dean District Council, has developed and evaluated a peer education workshop using the e-Bug interactive science road show.
- e-Bug is a European project that educates children and young people on hygiene and the spread, treatment and prevention of infection.

AIMS

To evaluate the ability of the peer education workshops to improve knowledge and change behaviour in young people.

E-BUG SCIENCE ROAD SHOW

### Microbe Mania
- An introduction to microbes, outlining that microbes are both useful and harmful and can be found everywhere.

### Horrid Hands
- An interactive demonstration describing how microbes spread through touch.

### Super Sneezes
- The snot gun visually represent how far microbes in a sneeze can travel.

### How Clean is Your Kitchen?
- UV gel is used to show how easily microbes spread during the handling and preparation of food.

### Antibiotic Awareness
- A colour change experiment highlights the importance of taking antibiotics correctly.

DISCUSSION AND IMPLICATIONS

- The knowledge questionnaires confirm that the peer education workshop was effective at changing knowledge around hygiene, infection and antibiotic topics.
- Qualitative data suggests that peer educators gained confidence and communication skills through the workshops and that peer educators demonstrated behaviour changes since the event.
- A peer education resource pack is available to download from the e-Bug website, which provides educators with all the information they need to run an e-Bug peer education workshop in their school.

METHOD

- Four schools across South West England took part in the study.
- Within each school, 20-25 students aged 12 to 13 years were trained by e-Bug staff to become peer educators and to deliver a science road show (88 peer educators in total across four schools).
- During training, the peer educators worked in groups of three to five and were given a take-home information booklet.
- The following day, peer educators delivered the road show to younger students between the ages 8 and 12, adapting the delivery to suit their own style.
- All aspects of the workshops were evaluated with before, after and knowledge retention questionnaires with students as well as qualitative interviews with peer educators and teachers.

KNOWLEDGE CHANGE RESULTS

Schools took part in the workshops for several reasons: the benefits and opportunities for their students; to develop links and relationships with local primary schools; and to raise the profile of science and awareness of the topics covered.

- Hand hygiene had the highest pre-workshop knowledge, with antibiotics having the lowest.
- A significant improvement in knowledge was seen for all topics, for both primary and secondary students.
- Retention questionnaires showed a small decline in knowledge, but this was mostly not significant, and knowledge was still higher than baseline at 8 weeks post workshop.
- For some topics, peer educators had a higher level of knowledge retention compared to non-peer educators.

QUALITATIVE RESULTS

Teachers commented on peer educators’ behaviour:

- “Their confidence just grew throughout the day”
- “I think they’re more responsive to some of their learning [since the workshop] … I think there’s a better behaviour, better focus and generally they’re, they’ve improved, some of them, in their skills”

When asked what they had learnt from the workshops, students commented on confidence, how to teach and team working.

- “It helps with teamwork because if you’re saying things together you need to know when you’re saying it and that helps.”

Students also took messages home to their families:

- “I told my mum to wash her hands after she was working outside”

ACKNOWLEDGEMENTS

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If you would like more information please contact e-bug@phe.gov.uk

Or visit: www.e-bug.eu to view all the e-Bug teaching resources for children aged 4-18

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