



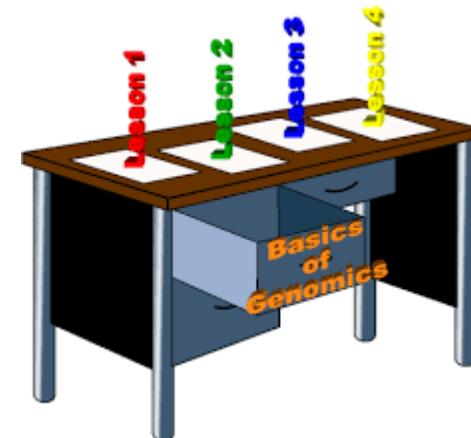
Mrs Deborah Leetham (UK)

*Using games to enhance the learning
and teaching of genomics in nursing*



Using games to enhance the learning and teaching of genomics in nursing

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Background: Student Nurse experience

- Student nurses consistently report learning of genetics and genomics to be difficult.
- Often the relevance of knowing about genetics and genomics is questioned by student nurses.
- Lack of confidence in using genetics and genomics in practice to manage patient expectations is widely reported.
- Wright et al (2018); Godino and Skirton (2012)



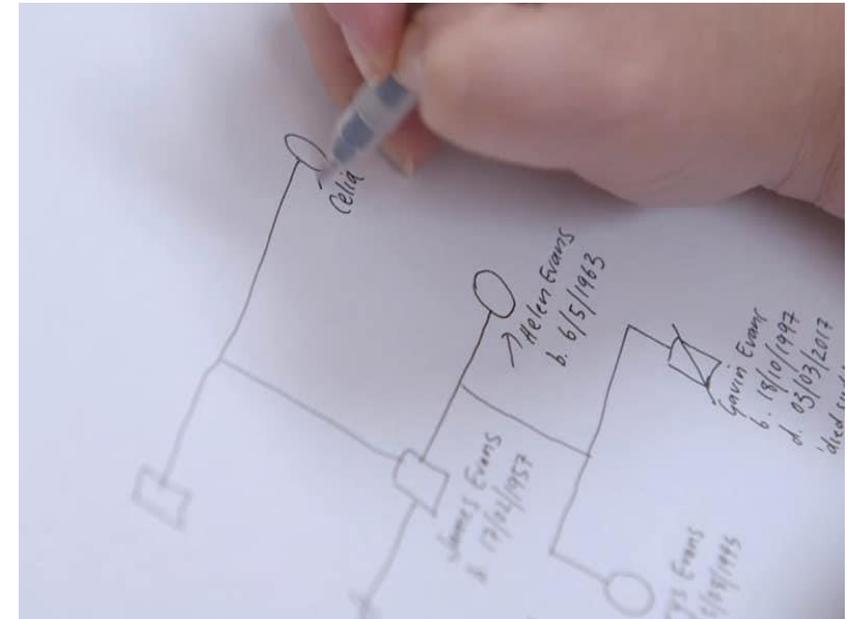
Background: Nurse Educator experience

- Little confidence in the teaching of genetics and genomic.
 - Perceived limited resources available to underpin teaching.
 - Unpopular subject to teach.
 - Perceived as irrelevant in clinical practice.
 - Teaching often limited to the “science” aspect.
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- Donnelley et al (2017)



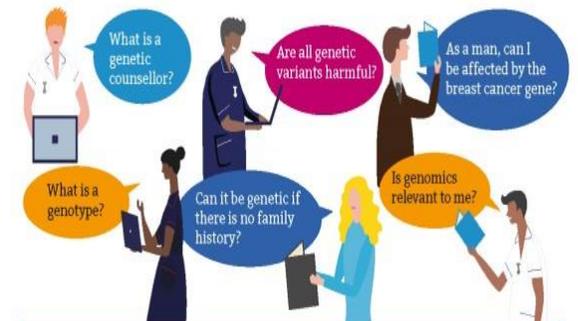
Genomics in clinical practice

- Genetic services review and transformation
- Introduction of genomic Medicine services
- Roll out of whole genome sequencing into mainstream care
- Integrated approach to service delivery



Challenges for future nurse preparation

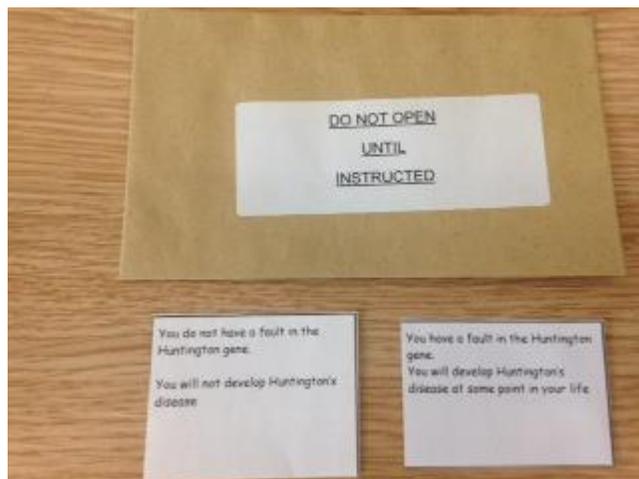
- Integration of genomics into mainstream care.
- Preparation of future workforce to meet patient expectations.
- Upskilling of nurse educators to integrate genetics and genomics into nurse education programmes.
- Accessible teaching materials to support those in HE.



Games as pedagogy

- A game is described as a generic term to include a range of skilled activities that provide frameworks for inserting content and creating learning activities
- Provides a stimulating pedagogy
- Promotes lecturer engagement
- Encourages the sharing of experiences
- Is a context sensitive framework
- Is fun and can inject humour into a lesson

Abdulmajed et al (2015); Boctor (2013); Bai and Lambert (2010)



Adult nursing students from Northumbria University



Northumbria
University
NEWCASTLE



Method

- Questionnaires, devised by GEP were used to collect quantitative and qualitative data
- Students were asked to complete an anonymous pre and post game questionnaire about their learning experience of using the game
- Nurse Educators were asked to complete a questionnaire about their teaching experience of the game.
- The questionnaires were developed by the Genomics education Programme

www.genomicseducation.nhs.uk



Sample

Board game

- BSc 3rd year adult nursing students
- Final year adult nursing apprentices
- BSc 2nd year international adult nursing students

Testing “envelope” game

- BSc 2nd year adult nursing students
- M nurse final year adult nursing students

Findings: Student responses

“It was fun
and a good
way to link
theory to
practice”

“It didn’t matter if you
said the wrong answer.
We could debate stuff”

“It didn’t matter
if you said the
wrong answer.
We could
debate stuff”

“I think I could tell you
a few facts about
genomics now and
look out for the clues
in the wards”



Findings: Educator responses

“The board game was easy to use and Adaptable. I developed a quiz and awarded prizes”

“The engagement and competitiveness amongst students was excellent. Answers were positive as well”

“Being new to this subject the games helped me to prepare more easily. I could locate evidence for the specific workshops using the game to guide this”



Moving forward

This study has limitations and further research is required to assess the longer term impacts

Establish if gaming as a pedagogical approach affects lecturer confidence in teaching genomics

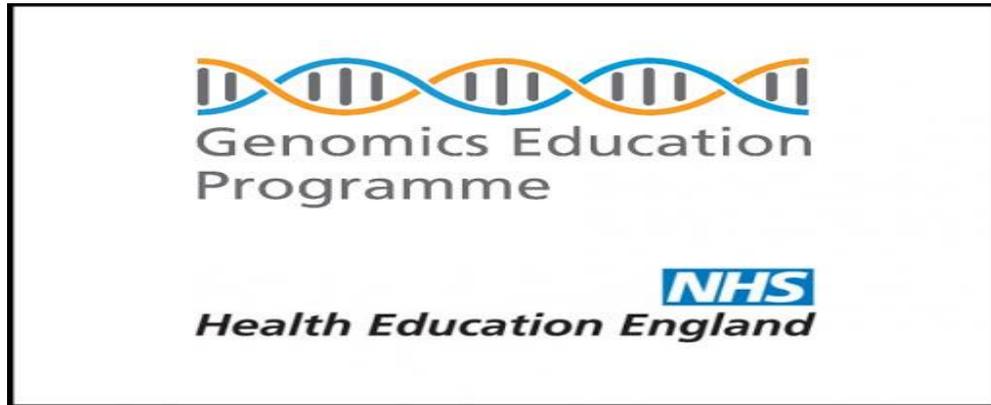
Development of an educational toolkit

“There are many ways of going forward but only one way of standing still.”

FRANKLIN D ROOSEVELT



Collaborative working with GEP



- Knowledge and information sharing
- United voice in genomics education
- Access to a wide range of resources
- Strengthening ties
- Inspires new ideas

References

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