Can Twitter be used to Enhance Student Engagement and Learning in Medical Education?

Catherine Hennessy & Scott Border
Background...

.....Why introduce Twitter?
Nervous & Locomotor 2 (NLM2): A Notoriously Difficult Module

Despite high levels of difficulty and complexity, reduced curriculum time has been reported in USA since 2002\(^1\) and in UK/Ireland since before 1999\(^2\).

Result = Anxiety amongst students
Neurophobia

“A fear of neural sciences and clinical neurology”
Methods of supporting students during NLM2

Podcasts
To reduce student anxiety levels
Only 24% of students rated these highly

Discussion boards
Student participation is problematic

Twitter as a learning tool in medical education
#NLM2SOTON
Aims

To investigate if:

1. Twitter can be used to create an informal online community for neuroanatomy discussions between students and teachers.

2. Twitter can be conducive to: learning, increased student engagement and relieving students’ anxieties.
Method....

......what did we do?
Twitter hashtag construction and analysis

Pre-module

#NLM2soton creation
Widget creation on Blackboard (VLE)

During module

#NLM2soton launched to 197 Year 2 students
#NLM2soton feed monitored by teachers

Ethics approval

Post-module

Tweet themes identified
Survey instrument
Focus group

#NLM2soton frequency of use vs Exam results
Opinions of usefulness
1 hour
11 NLM2 students
Results.....
Common themes of tweets identified
Sharing ideas

Morale boosting

Q & A

Worries

Lydia Edge @alwaysheleenaist
@ScottBorder1 @CathHennessy Posterior auricular branch of the facial nerve- is it a motor branch? It's not in the TZBMC acronym!
#nlm2soton

Ollie Cole @olicoley • Jan 8
For the more visual #NL2soton learners - sorry it has come out a bit squished!

Rubrospinal
(with corticospinal)
fine motor

Medial vestibulospinal
CN11 head balance
lateral vestibulospinal
Leg extensors (balance)

Medial reticulospinal
facilitate voluntary motor and tone

Lateral reticulospinal
inhibit voluntary movement
Questionnaire Responses

Response rate = 78%

- **Easier communication with teachers**: 80% agreed
- **Useful learning neuroanatomy**: 69% agreed
- **Receiving feedback to assist learning**: 67% agreed
- **Building engagement**: 75% agreed
- **Increasing morale**: 72% agreed
No significant relationship was found with Spearman’s correlation coefficient (n=119)
Basic thematic analysis of focus group responses

1. Useful for learning & encouraged student engagement

“stuff that you hadn’t thought about revising you could see that others had been ......that reminded you to revise it”
Basic thematic analysis of focus group responses

2. Facilitated communication with lecturers & useful for receiving feedback

“responses from lecturers...were quick and straight to the point...I found that really useful”
Basic thematic analysis of focus group responses

3. Built a supportive network & reduced student anxieties

“the barriers it has broken down.....was the module that people most enjoyed during revision and it did become more interesting....there was more interaction which came from Twitter......it built a strong relationship between us and the NLM2 teachers”
Conclusions
The evidence suggests that Twitter...

**DID NOT** affect exam performance

**HOWEVER** it **DID** facilitate student engagement with the NLM2 anatomy course

- Created an informal online community between students and teachers
  - Sharing learning ideas
  - Receiving quick & concise feedback
  - Lecturers more approachable
- Relieved anxieties and increased neuroanatomy enjoyment
  - Broke down barriers
  - Banter increased morale
  - Created a relaxed atmosphere

Created a supportive network for learning
We found...

Ultimately, Twitter enhanced the student learning experience

“rumours that it’s really hard and it wasn’t really that hard in the end...Twitter helped to dispel some of the rumours that NLM2 was so hard”
Recommendations for setting up your Twitter hashtag

1. Set up a widget

2. Be prepared for time commitment – students value fast and concise responses

3. Useful for more challenging subjects

4. 140 character limit – long answers not possible

5. More favoured by school leaver age group rather than slightly older students

6. Be aware of setting professionalism standards from the start
Any Questions?

Catherine Hennessy  @CathHennessy
Email: C.M.Hennessy@soton.ac.uk
Centre for Learning Anatomical Sciences, University of Southampton, Tremona Road, Southampton, U.K. SO16 6YD
References


