E-assessment for critical care nursing education: evaluation of the use of a summative online scenario based debate

Suzanne Bench
Kate Brown
Philip Blake
Session aims

• To establish the drivers for inclusion of an e-assessment strategy within post qualification critical care nursing education

• To detail the development and implementation of the e-assessment strategy

• To present evaluative data regarding the impact of the e-assessment strategy on educational outcomes, student satisfaction and the satisfaction of intensive care nursing managers
Background

- Intensive and high dependency nursing modules run twice per year.
- Approximately 50-60 students per module
- 30 credits towards level 5 (UK Diploma) or Level 6 (UK Degree) programmes
- Former assessment consisted of:
  1. 3,500 essay examining an aspect of critical care nursing practice
  2. 2 hour scenario based examination
  3. Competency in practice
• “The end-to-end electronic assessment processes where ICT is used for the presentation of assessment activity and the recording of responses” (JISC), 2007
Drivers for E-Assessment

• Appropriateness
• Relevance
• Accessibility
• Timeliness
• Validity and authenticity

(JISC 2009)
Implementation of E-assessment

- Establishing an evidence base for this type of assessment strategy (Ripley 2007, JISC, 2009)
- Consultation process
- Setting up the online platform
- Timeframe for introduction
<table>
<thead>
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<th>Week</th>
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| 2    | Introduction to online assessment:  
|      | • Allocation of study groups and group facilitators  
|      | • Formative scenario available for viewing |
| 3-4  | Online contribution by all students to formative scenario |
| 5-6  | Formative feedback from group leaders to students |
| 7-8  | Summative scenario available for viewing only |
| 9-12 | Online contributions to summative scenario |
Sleep

Joseph Mwengwe has been a patient on the critical care unit for three months. He is displaying signs of agitation and confusion and appears to have long periods of wakefulness at night.

Student Activity
Debate the nursing issues relevant to the promotion of effective sleep and rest in the critical care environment

Things to consider
What factors influence sleep in the critical care environment?
What effects might sleep deprivation have on Joseph?
How might the critical care nurse promote sleep? What does the evidence say?
How might this scenario be managed in your own area of practice?
What other issues arise in managing the sleep deprived patient?

Re: Sleep

Before progressing to a discussion of how to promote sleep, perhaps we should begin by defining sleep. Roper et al (2000) define sleep as a “recurrent state of inertia and unresponsiveness, a state in which a person does not respond to what is going on in the surrounding environment,” the importance of which may be inferred by their inclusion of it as one of the ‘distress activities’ of Palliative Care in their evidence-based guidelines. This definition is helpfully highlighted...
Communication needs but often fail to put this knowledge into practice. Moreover, most nurse-patient communication was instructional or informative. Ashworth (1980) found that the less communicative patients were the less communicative nurses were in return. The ICU nurses are responsible for the technical as well as the psychological care of their patients (Stanton 1991). Mr Mtwegwe needs to be constantly kept inform regarding his prognosis and be reassured when he is worried.

Re: Sleep
by 0422852 » Thu Dec 03, 2009 2:00 am

In addition, I would like to respond to 0121738. I also agree with your statement made on 02/12/09 “I am in agreement with 0975053/1 that it is so important for health professionals to know the affect of medication that we give patients”, however I would like mention that it is also important to consider new studies which question the real effect of the certain already discussed medication. I found another study, the literature review by Figueroa-Ramos et al 2009. They suggest that larger studies are needed to truthfully reveal the effect of opiates and benzzodiazepines on melatonin and sleep/circadian effects (as well as delirium).

Re: Sleep
by 0540303 » Thu Dec 03, 2009 7:05 am

We have been discussing about delirium. I would like to touch on the definition of delirium briefly.

American Psychiatric Association (1994) defined delirium as a disturbance of consciousness with inattention accompanied by the change in cognition or perceptual disturbance that develops over a short period of time (hours to days) and fluctuates over time.

Bright (2001) also defined as an acute reversible organic mental syndrome with disorder of cognitive function, increased or decreased psychomotor activity and a disorder of sleep-wake cycle.

Delirium is often associated with hypoactivity or hyperactivity, as well as sleep disturbances, hallucinations, and delusions (Sweeney et al 2008, Cole 2004).

Re: Sleep
by 0436839 » Thu Dec 03, 2009 2:53 pm

In light of Joseph’s symptoms of agitation and confusion, I agree with previous contributors that the condition of delirium warrants consideration. As 0422852 rightly points out, it is not clear whether in his case the sleeplessness or the delirium has come first. In my own trust, a delirium pathway has been developed, which identifies those at risk, the most likely causes, and suggests appropriate measures to manage the patient. Thus, in my clinical area, we would look for causes of Joseph’s confusion such as infection, pain and medication. Management would address the suspected causes, and so may include assessing and appropriately treating infection or pain, and reviewing his medication. More non-specific measures would include communication techniques.
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<tbody>
<tr>
<td><strong>Understand</strong>ing</td>
<td>Carefully chosen entries demonstrate a thorough understanding of key facts. Insightful and creative analysis evident</td>
<td>Entries demonstrate a good understanding of key facts. Convincing analysis of relevant issues is evident</td>
<td>Entries demonstrate a sound understanding of key facts. Some analysis of relevant issues is evident</td>
<td>Entries demonstrate some general knowledge of key facts. Superficial or limited analysis of relevant issues</td>
<td>Entries do not demonstrate adequate knowledge and understanding of key facts. Analysis of relevant issues is poor or absent</td>
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<tr>
<td><strong>Selection and Coverage</strong></td>
<td>A comprehensive range of sources used and applied meaningfully. Entries reflect explicit links between theory and practice. Rationale for choice of material is clearly justified</td>
<td>A wide range of sources used and applied, with no major omissions. Entries reflect a clear link between theory and practice. Rationale for choice of material is justified</td>
<td>Some appropriate sources used and applied, but lack of extended reading evident. Entries reflect some application of theory to practice. Rationale for choice of material not always justified</td>
<td>Minimal sources used and applied. Entries reflect limited application of theory to practice.</td>
<td>Irrelevant or inappropriate sources used and applied, with key omission evident. Inadequate level of contribution. Limited or flawed application of theory to practice</td>
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<tr>
<td><strong>Structure</strong></td>
<td>Entries are clear, fluent, integrated and focused on the given scenario</td>
<td>Entries are clear, coherent and contribute to a logical discussion around the given scenario.</td>
<td>Entries are clear, but lines of argument and discussion related to the given scenario are not fully developed.</td>
<td>Entries are adequately presented and generally logical. Little focus on the given scenario</td>
<td>Entries are disorganised, unclear or barely comprehensible. Lacks focus on the given scenario</td>
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<tr>
<td><strong>General</strong></td>
<td>Contributions are presented in an academic form and appropriately cited. Safe and professional practice evident.</td>
<td>Contributions are presented in an academic form and appropriately cited. Safe and professional practice evident</td>
<td>Contributions are presented in an academic form, but not always appropriately cited. Safe and professional practice evident</td>
<td>Contributions are presented in an academic form, but not always appropriately cited. Entries suggest limited awareness of aspects of professional practice</td>
<td>Contributions are not presented in an academic form, or not appropriately cited. Entries suggest a lack of awareness of aspects of professional practice</td>
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Evaluation of E-assessment

- 180 students have completed the assessment:
  - ICU: n=99 @L6 (degree), n=29@L5 (diploma)
  - HDU: n=41@L6 (degree), n=11@L5 (diploma)
- 12.8% difference between marks awarded for essay and exam (2008-2009)
- 9.4% difference between marks awarded for E-assessment and exam (2009-2010)

1. What do you like about it?
2. What difficulties have you had with it?
3. What would you change about it?
‘Made me really think’

‘You could work in ‘bite size’ pieces...less daunting than an essay’

‘Really creative way to learn...gives you opportunity to discuss topics and most of all learn about other peoples’ practices’

‘Encouraged me to challenge my current practice’

‘Could be done at home or anywhere and at any time, was accommodating for shift work’
• ‘Being concise whilst covering points well’

• ‘Too many long postings, therefore boring to read’

• ‘People kept writing the same things’

• ‘The quality of others’ posts really affected any answers’

• ‘I am the kind of person who prepares at the last minute and gets good marks-this task was very difficult to adapt to’
What would you change?

• Specify word/post counts
• Smaller groups and ongoing facilitation by group leader
• More explicit guidelines
• More time/less time!
• Ability to edit posts
• Developing threads for discussion, more structure
• Nothing
• Change back to an essay (n=9)
Challenges identified by staff

- Staff resources
- Volume of work
- Maintaining regular contact
- Dealing with unprofessional behaviour
- Applying the marking criteria
- What to do in the event of a student failing?
- Dealing with plagiarism
- Feedback from disability advisor
Managers feedback

- Via module management meetings
- Some concerns at first
- Anonymous examples shown
- After first set of results confidence grew
- Opportunity to change back to essay

NO
The ideal way forward

- Smaller groups
- Ongoing moderation and feedback
- Word limits on postings
- Threads within the discussion topics
- ‘User friendly platform’
Conclusion

• Despite a range of technical, cultural and attitudinal challenges, evaluation of the implementation of this novel strategy found it to be an effective method of assessment for this module, when appropriate resources were available.
Thank-you for listening

Any questions?

suzanne.bench@kcl.ac.uk
kate.brown@kcl.ac.uk
References and recommended reading