

Analgesia and anaesthesia study day for undergraduate midwives

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Introduction

NMC standards state, all qualifying midwives should be able to:

'assess, plan and provide care and support in regard to the woman's experience of and response to pain and her need for pain management, using evidence-based techniques including comfort measures, non-pharmacological and pharmacological methods'.¹

An analgesia and anaesthesia study day was designed and delivered annually, by a team of anaesthetists to year 2 undergraduate midwifery students at a local university, with the aim of improving students' knowledge and confidence.

Method

The study day is outlined in Table 1.

A variety of teaching strategies were used: lectures, small group workshops and practical stations.

Topics were all relevant to the NMC recommendations and based on current guidelines from NICE, OAA and AoA.

Session title	Key topics covered
Physiology of pain	Pain pathways in labour
Entonox	Relative contraindications Environment/occupational exposure
TENS	Not NICE recommended
Opiates	Pethidine/diamorphine Remifentanil PCA
Remifentanil PCA Scenario	Recognising & managing opiate overdose
Post CS analgesia	WHO analgesic ladder Intrathecal opiates and side effects Analgesia and breastfeeding
Neuraxial anaesthesia	Indications, contraindication, side effects Critical incident recognition (LA toxicity, high block)
Testing epidural blocks	Dermatomes and correct block height Motor block Difference between LA toxicity & high block
High epidural scenario	Recognition and management

Table 1: Study day programme and key topics covered

Results

Students completed a pre course online test which was repeated post course.

- From 2019-2023 data was collected from 269 pre course and 214 post course tests, 80% response rate.
- Mean score improved from 62% to 86%** ($p < 0.01$), see Figure 1.
- Most improvement was seen in questions relating to regional anaesthesia, e.g. how to check the sensory block level and safety issues, see figure 2.

Feedback was very positive, students felt the day was extremely informative, particularly as these topics had not previously been covered.

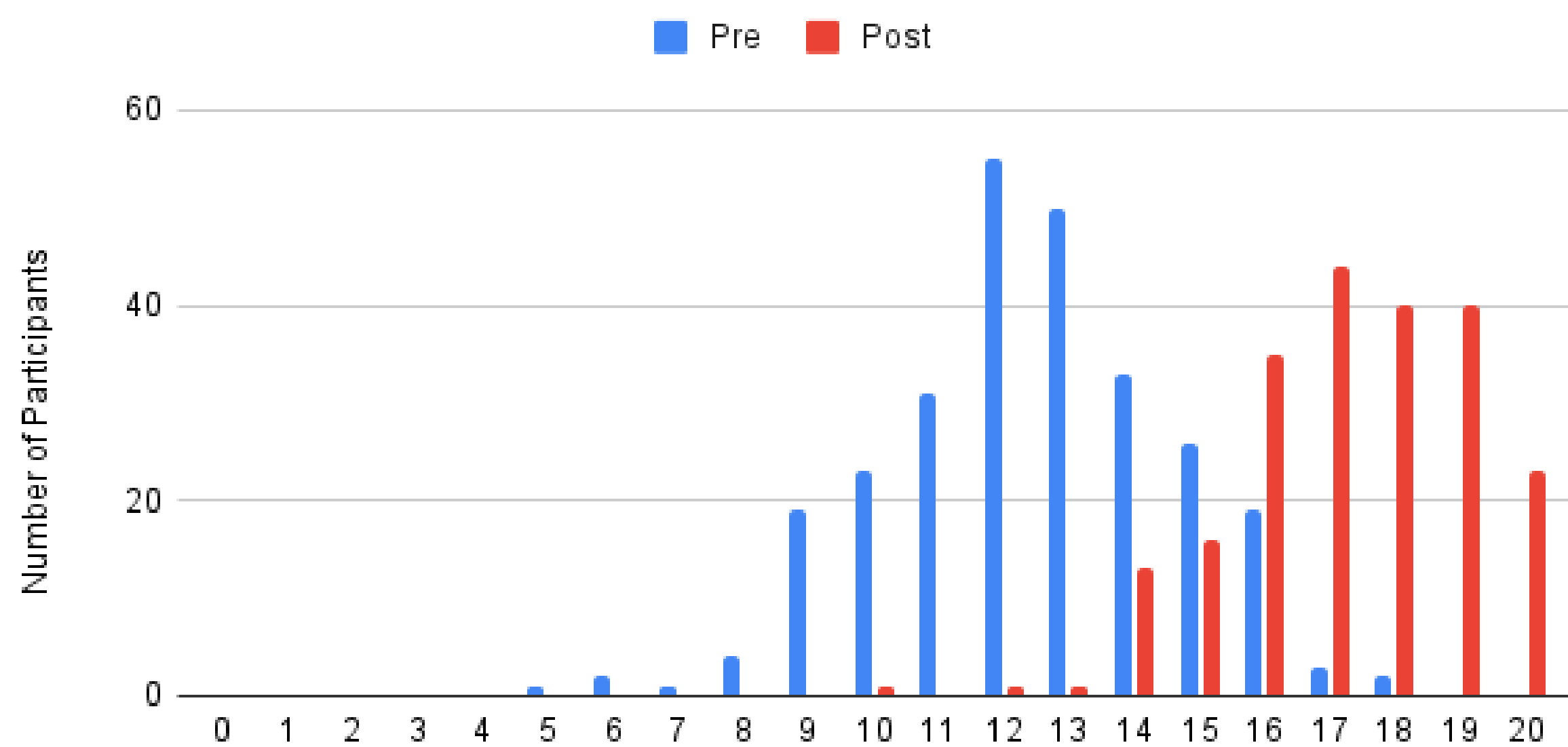


Figure 1: Pre and post course test results

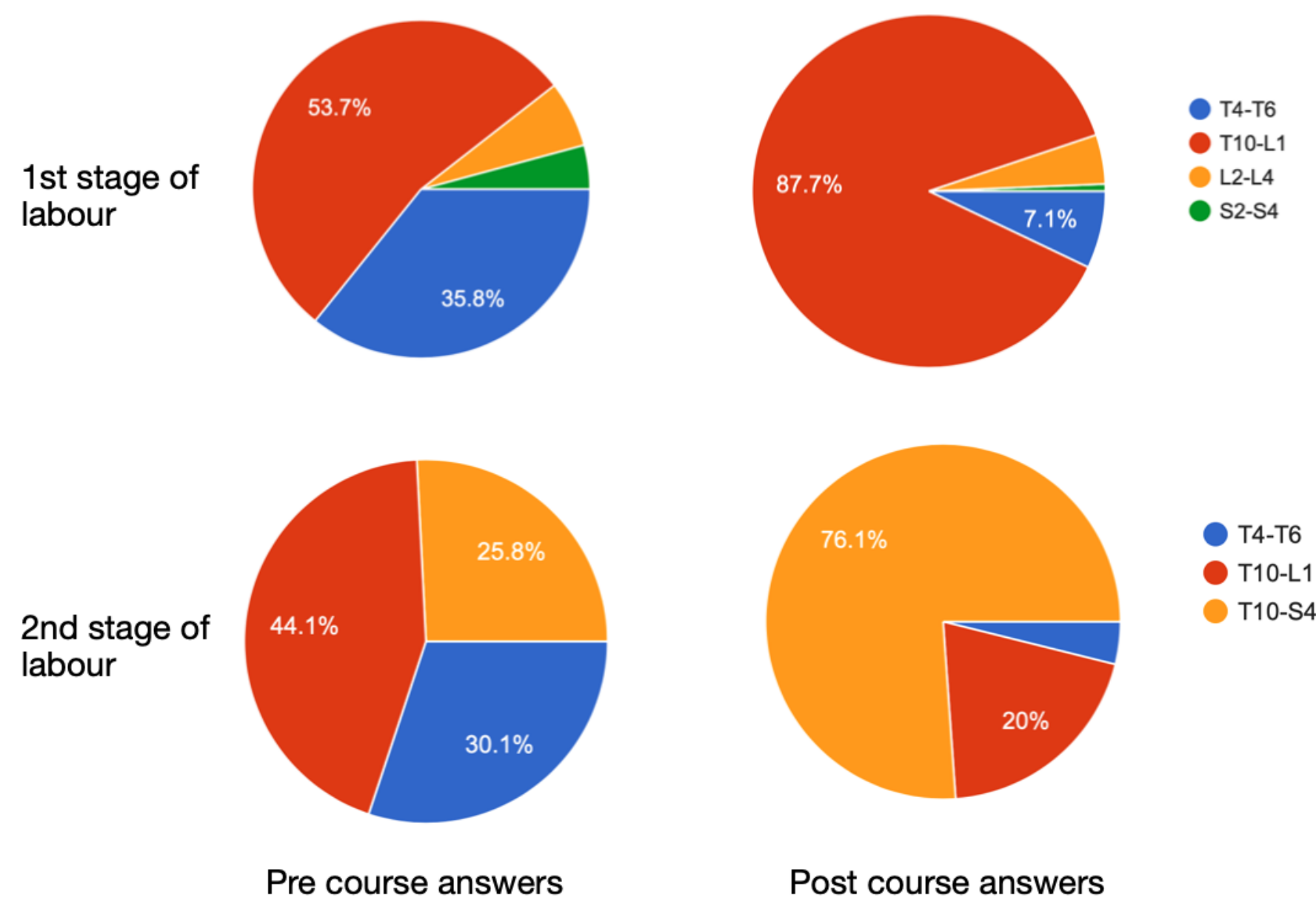


Figure 2: These pie charts show how understanding of the required dermatomal levels for the 1st and 2nd stages of labour improved dramatically (by 43% and 49% respectively).

Student feedback was collected via an online form. This enabled Kirkpatrick level 1 and 2 evaluations of the teaching. Feedback was collected from 143 students and was very positive, see figure 3.

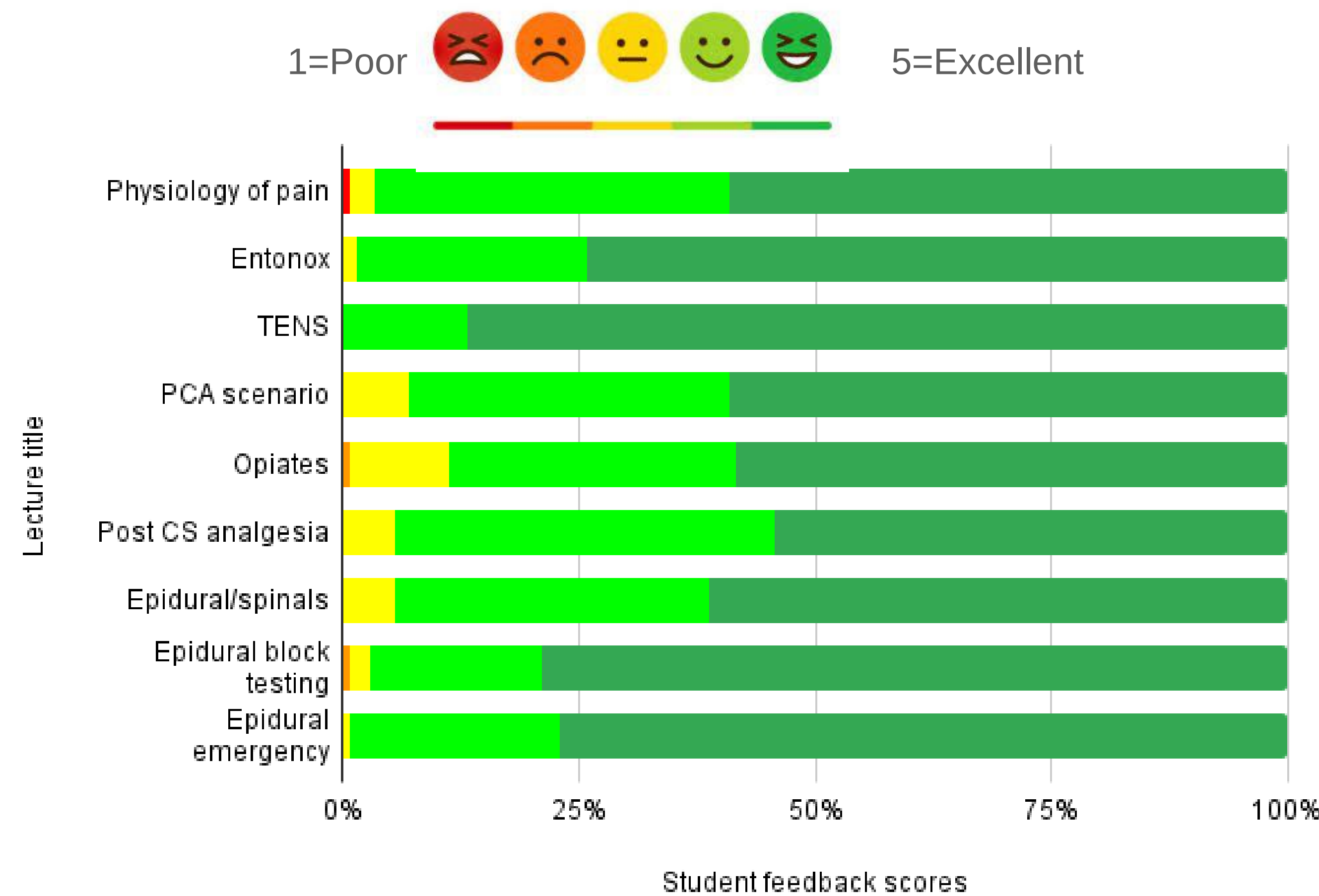


Figure 3: Student feedback for each session, scored 1 (poor) to 5 (excellent). Feedback overall was very positive for all parts of the course.

Discussion

- All students found the training to be relevant to their role and useful (Kirkpatrick level 1).
- Significant improvement in the post test scores demonstrated that students had acquired knowledge (Kirkpatrick level 2).
- Future plans:**
 - re-survey of students to assess whether they have applied their knowledge in the workplace (Kirkpatrick level 3)
 - survey of midwifery universities to identify the level of anaesthetic input into undergraduate midwifery education
 - consideration should be given to a nationally approved program, agreed in collaboration with obstetric anaesthetists, to help standardise this important aspect of midwifery training

References

1. NMC Standards of proficiency for midwives. Published 18 November 2019.