



Introduction

Although peer assisted learning (PAL) is widely used within undergraduate education including the medical curriculum (1-5) there is little evidence of use within dental education literature. This innovative study compared peer assisted learning versus staff-led teaching in two aspects of clinical skills within the BDS 1 'Introduction to Dentistry' course. Peer trainer volunteers from BDS 5 joined with staff for the delivery of each of the tasks.

Methods

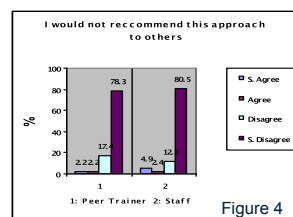
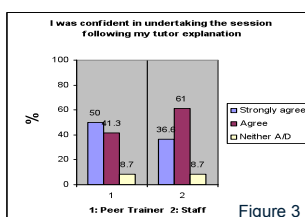
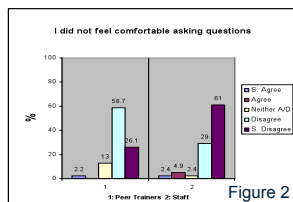
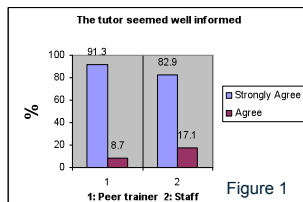
The study compared staff-led versus peer-led teaching in a clustered randomised controlled trial during a clinical (Task 1: taking impressions) and laboratory task (Task 2: tooth preparation drilling plates) for Year 1 dental students. Informed consent was received following an explanation of the study. Quantitative and qualitative methods of data gathering were employed including questionnaires and focus groups. Questionnaires with Likert scale responses on opinions about the task and the teaching methods were given to students in each arm after the sessions. The two group's responses were compared using Fisher's Exact Tests.

For Task 1: BDS 1 students ($n = 92$) were split into small groups (of around 12 students), with these small groups being randomly allocated to either the peer-led arm, or staff-led arm. There were 11 peer tutors from within the BDS 5 cohort. The PAL cohort had a tutor: students ratio of 1:4. The staff led cohort had a tutor to 1:8.

For Task 2: A training plate (Nissin Dental, Japan) was used to introduce students to the concept of caries removal. There were 14 volunteer peer trainers (tutor; students ratio 1:3. The staff: student ratio was 1:12. An assessment score of 0 (not completed), 1 (partially completed) and 2 (completed) was scored by an independent scorer (Figures 4-6).

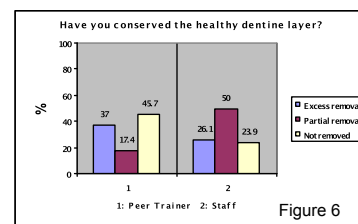
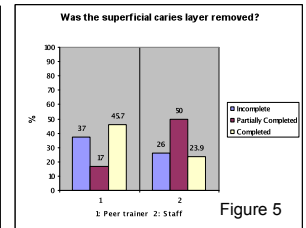
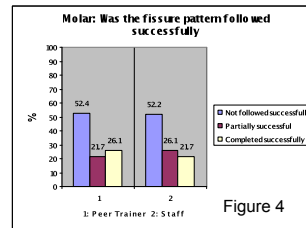
Results

Task 1. 95% ($n=87$ of 92 students) completed feedback questionnaires. Quantitative data from questionnaires showed little differences between groups (Figures 1-4.)



Following receipt of questionnaires, emergent themes were explored further during focus group meetings for students and peer trainers. The content analysis of the transcriptions of the focus group meetings is still work in progress.

Task 2. Quantitative data is shown for assessment of one tooth on the training plate. There were three elements to the assessment; following the fissure pattern, removal of superficial caries and conservation of dentine layer (Figures 4-6).



Discussion

Qualitative and quantitative data exhibited little difference between the peer-led and staff-led groups. In focus group meetings after each task themes from the questionnaires were explored.

Peers were considered more approachable and put concepts in context better than staff. Peers were also considered less 'intimidating' than staff when asking questions. Peer-led arms had smaller tutor: student ratios which may have been a factor. The peer trainers reported their learning of the subjects improved by adopting deeper approach to learning. This in turn improved their own communication and mentoring skills.

Conclusions

Peer assisted learning can be used within the dental curriculum for limited clinical procedure's teaching and laboratory based course work.

All recruits for this study were volunteers. Whether this approach could be routinely be adopted into the dental curriculum requires further investigation. Future work will compare examination results for overall differences between staff-led and peer-led groups.

References

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Acknowledgement

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