Peer assisted learning: a planning and implementation framework

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Context
Peer-assisted learning (PAL) has become an established and well-accepted teaching method in medical education (Santee and Garavalia 2006, ten Cate and Durning 2007) that offers a variety of advantages for both learners (Santee and Garavalia 2006) and peer-tutors (Dandavino et al. 2007). As far as we are aware, there are no reports of PAL programmes related to internal medicine with final year students acting as peer tutors.

Activity
In summer 2007, we implemented a cross-year peer tutoring programme at the Medical Hospital of the University of Heidelberg for medical students in their third year of training using a technique similar to that used by Ross and Cameron (Ross and Cameron 2007). The programme was designed to support the transfer of knowledge and skills from lectures, PBL lessons, clinical skills and communication training sessions directly to the bedside. The programme design included the recruitment of up to 24 final year students per year as peer tutors during their introduction week (Nikendei et al. 2006). These were trained for their assignment as peer tutors working from a tutor manual and are supervised on a weekly basis by an experienced medical tutor. All receive a financial allowance for their commitment. During a five-week internal medicine ward placement, a total of 320 third-year medical students per year take part in 10 PAL sessions in groups of between three and eight students. Learning objectives include:

- history taking
- physical examination
- blood sampling
- the insertion of in-dwelling catheters
- blood transfusion
- completing patient files
- ECG reporting
- chart rounds

An accompanying credit-point system is in place and students are further required to admit one patient per week and to present the patient to a medical supervisor using a SOAP note. Tutorials primarily take place at the bedside or serve as preparation for duties in direct contact with the patient. To this end, additional weekly meetings between tutors and students are possible and expressly desired. For the continuous evaluation of the programme and the assurance of programme quality, meetings between tutors and students regularly take place.

Evaluation
The on-ward PAL programme has been shown to be very well accepted by both peer tutors and students (Nikendei et al. submitted). Medical students involved in our programme reported appreciating the single sessions and highly valuing the excellent preparation of the PAL programme. Peer tutors acknowledge that participating in the programme results in an enhancement of personal teaching skills and an increase in basic clinical skills and also affirm their willingness to serve as a peer tutor in the future.

In a controlled study prior to implementation of our PAL programme, we evaluated it using an intervention group (n = 88) that received the 10 patient-centred tutorials and a control group (n = 80) that did not take part in the PAL programme. Group comparisons of post-intervention self-assessed clinical competencies revealed significant effects, which were clearly reflective of the medical curriculum on offer at the Medical Hospital. Skills that were also taught in the control group in training sessions beyond the scope of the PAL programme (e.g. blood withdrawal in the skills-lab training or exploration skills in the communication training program with standardised patients) did not significantly differ between the intervention group and control group in the post-intervention comparison of self-assessed competencies. In contrast, differences between the two groups in skills taught exclusively in the peer teaching programme proved significant. The intervention group reported significantly greater learning effects (p<.0001), feeling significantly more integrated on the ward (p<.0001) and significantly less anxiety concerning on-ward work as a medical doctor (p<.0001).
Conclusion
We conclude that final year students serving as peer tutors in a cross-year PAL programme may fulfil a central role in achieving learning outcomes and incorporating medical students into ward routines during ward placements. PAL programmes conducted on the ward represent a particularly valuable tool for supporting medical students, especially in the light of other findings, suggesting that the supervision of students performing clinical competencies in clerkships is rare (Daelmans et al. 2004).

While peer tutors are no substitute for instruction or supervision by a qualified physician, the potential of PAL programmes is promising and should be built upon. However, the quality of such programs depends on the effective training and close supervision of peer tutors. Further research is needed to demonstrate the effectiveness of such PAL programmes in ward–based teaching, using objective performance measures.

References

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