

## **Peer Assessment and Feedback: opportunities for implementation in dietetic practice education**

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### **Introduction**

Practice Education is an integral part of all student dietitians' academic education. In 2001, Walters stated that the purposes of Practice Education were to facilitate development of professional knowledge, skills and attitudes; to allow the application of theory in practice and to facilitate development of professional identity. The British Dietetic Association (BDA) philosophy for education and training states that all dietetic workplaces should be conducive to supporting education of student dietitians, with students being expected to spend a minimum of 1000 hours applying skills in a placement environment throughout their study course (BDA 2008).

It is well established that the assessment process can fundamentally affect a student's learning (QAA, 2007). Practice education assessment is crucial to the preparation of competent practitioners for several reasons. Marsh et al (2006) suggested that the purpose of assessment in clinical practice is to: protect the public; predict future behaviour; identify the level of student achievement and monitor progress; motivate students; evaluate the effectiveness of teaching and assess competence.

Historically, experienced Registered Dietitians have taken the lead role in formative and summative assessment of student dietitians in clinical settings and have been the primary source of students' feedback.

### **Peer assessment**

Although peer or collaborative learning has been adopted into dietetic practice education with numerous positive outcomes (Roberts et al 2009), peer assessment is less common. Peer assessment can be defined as a process involving students assessing each other (Bloxham & Boyd 2007). Morris (2001) suggests that involving students in the process facilitates assessment becoming an integral part of the learning process. This form of assessment can be summative and consequently used as a component of overall assessment. However, it can also have a valuable role in formative assessment processes with the key focus on students providing feedback on each other to inform further development of knowledge and skills (Race 2001). Several advantages to peer assessment have been identified, including deepening

students' learning experience through application of assessment criteria to peers' work (Race 2001). Peer assessment can also facilitate improved understanding of subject matter and expected assessment standards (Bostock 2000). It has also been shown that self- and peer assessment encourage lifelong learning, developing skills which allow students to evaluate their own and their peers' achievements realistically rather than simply relying on tutor feedback (Brown 1996 cited in Bostock 2000). It has also been shown that using peer assessment facilitates students receiving more feedback, supporting learning (Race 2001). However, when implementing peer assessment processes it is important to consider how to ensure the consistent quality of peer assessment including taking into consideration reliability of assessment and impact of peer relationships (Norcini, 2003). It is also important to ensure that students are appropriately equipped to undertake this form of assessment (Race 2001).

### **Peer assessment in clinical education**

Limited research exists into the role of peer assessment in dietetic practice education. Daniels and Magarey (2000) positively evaluated the implementation of peer assessment in nutrition and dietetics courses at Flinders University (South Australia) and found that students positively reviewed the process and appeared to build confidence. The process also facilitated skills development, which provide a foundation for effective, self-directed and reflective practice. In their report on the development of an innovative model for clinical education in dietetics, Roberts et al (2009) discuss their use of peer assessment and feedback as a means of formative assessment. Students work in pairs and are encouraged to rotate 'doer' and 'observer' roles giving regular feedback on each other's performance using brief 'observation reports'. However, the authors comment that, in line with the historical model of assessment, experienced dietitians carry out the summative assessment with which students are not involved.

Evidence of the success of peer assessment in medical training is more extensive. In 1993, Ramsey et al reviewed the use of peer ratings to evaluate performance of junior physicians. Employing other physicians and nursing staff as peers, it was found that ratings from 11 peers were required to obtain a reliable assessment of clinical skills, communication skills and humanistic qualities.

Peer assessment has also been shown to be an effective tool to assess and encourage development of professional behaviour, specifically interpersonal skills. In a study of 138 medical students, it was found that 65% of students reported that peer assessment had had a beneficial impact on awareness, attitudes, or behaviours. (Nofziger et al, 2010). However, these authors also note that students should be provided with training prior to providing peer feedback to ensure both positive and constructive feedback.

The provision of support for medical students in providing effective peer feedback formed a fundamental component of the implementation of peer review at the Australian National University Medical School (Owen and Ramsey, 2007). Prior to the first peer assessment students received 'active skills training' in both providing and receiving feedback effectively in a range of contexts. Notably, peer group 'functionality' formed a component of this peer assessment. This allowed tutors to moderate possible bias in peer ratings.

A further example given in the literature of use of peer assessment in medical education is that of the mini-PAT (Peer Assessment Tool) to evaluate medical trainees in the UK (Archer et al, 2008). The mini-PAT is a multisource feedback instrument that collates opinions of peers about performance of the trainee across a range of spheres. This tool was developed from the Sheffield Peer Review Assessment Tool (SPRAT), which was designed to assess performance of senior medical staff (e.g. consultants and GP's). The application of the mini-PAT involved medical trainees nominating doctors, nurses and professionals allied to medicine with whom they worked closely as potential assessors. Nominated assessors were asked to use a six point rating scale to assess the trainee under 16 dimensions, grouped into 'Good Clinical Care; Maintaining good medical practice; Teaching and Training, Appraising and Assessing; Relationships with Patients and Working with colleagues'. Once completed mini-PAT tools had been collated, the results were sent to training coordinators and it was recommended that feedback with the medical trainee took the form of a supervisor meeting. On evaluation, Archer et al found the main sources of bias were associated with: length of trainee's working relationship with assessor; assessor's occupation; and working environment. However, the researchers concluded that mini-PAT appeared to offer a valid method of gathering peer opinions to support assessment of medical trainees.

Research into the use of peer assessment has also been conducted in other professions allied to medicine. Potential use of peer assessment in conjunction with simulated cases is given by Jones & Shepherd (2007) in the context of physiotherapy education. They suggest that students could use an assessment tool similar to that used by Practice Educators in clinical practice to guide evaluation of each other. The authors highlight that this process would allow students to become more familiar with assessment tools used in clinical practice in conjunction with developing understanding of expectations of their clinical supervisors.

Claessen (2004) also reported an innovative approach to the clinical training of postgraduate speech-language pathology students. There, the importance of preparing students for peer evaluation is highlighted, and in the report this role is given to the clinical educator who provides ground rules, including providing positive feedback before negative. Claessen describes the use of peer evaluation in both formative and summative assessment.

## **Challenges of implementing peer assessment in dietetic practice education**

Evidence exists of the use of peer assessment to support both formative and summative assessment processes. Prior to implementing peer assessment mechanisms into dietetic practice education it would be important to decide what type of assessment this method was best suited to. In the same way as Heron (1988, cited in Morris, 2001) argues that some academic staff may be unwilling to release control of the assessment process this may also be true for dietetic practice educators, making the implementation of peer assessment in a summative evaluation of progress more challenging. When debating this issue, it is also important to consider that in accordance with the QAA Code of practice for assurance of academic quality and standards in higher education (2007), awarding institutions have responsibility to ensure that learning outcomes are assessed appropriately while promoting assessment strategies which support student learning. To this end, prior to implementing peer assessment as either a formative or summative assessment tool, it would be the academic team's responsibility to provide appropriate training and support to both students and practice educators (QAA, 2007).

When considering the appropriateness of peer assessment mechanisms in work-based placements it is important to consider the number of peers required to ensure valid, reliable assessments. Norcini (2003) highlighted that peer numbers involved significantly impact assessment reliability. Current practice in dietetic practice education in London is that 1 to 6 students will be allocated to a placement site. Further research would be warranted into peer numbers required to form valid and reliable assessments, particularly if peer assessment was being considered as a summative assessment method.

A one-student placement site would need consideration as to whether students from several placement sites could be involved in the peer assessment process. One suggestion could be that students from several placement sites are used to peer evaluate a student's reflective writing, a key professional competency assessed in clinical training. Students could upload reflective pieces onto a virtual learning environment (e.g. WebLearn) and peers asked to assess the reflective piece against predetermined criteria and post comments on a confidential discussion forum. Practice educators or academic staff could moderate feedback being provided. If the framework for this feedback was carefully designed, it would be possible to monitor student progress, peer group functionality and quality of placement experience. A further solution to limited dietetic peer numbers available to assess a student would be to seek peer assessment from other students. This would be particularly appropriate for professionalism learning outcomes spanning several professions and would promote inter-professional learning and opportunities to optimize shared learning across professional boundaries.

When implementing peer assessment into dietetic practice education considering which skills are appropriate for peer assessment is also important. Within the current curriculum for Pre Registration of State Registered Dietitians (CPSM, 2000) learning outcomes for placement are categorized under knowledge, communication and professional practice. Dietetic students are unlikely to be competent in assessing peers' knowledge. However, more experienced students (e.g. students completing final placement) may be appropriate peers to assess students completing initial placements against communication learning outcomes. Students at any stage could also assess peers' professionalism within the framework of ensuring moderation of the assessment process and its evaluation as valid and reliable. The former suggestion would require allocation of students at different stages of training to the same placement site; this may have logistical and capacity implications.

This review has identified several tools to support clinical environment peer assessment ranging from informal discussion, observation reports, assessment tools similar to those used by practice educators to web-based and written peer observation questionnaires. When implementing peer assessment in dietetic practice education, designing the most suitable assessment tool for a specific purpose is important. Evidence also suggests that involving students in design of assessment criteria and subsequent assessment tools is beneficial (Morris, 2001; Owen & Ramsey, 2007). Criteria to assess professional behaviour, a learning outcome spanning all three dietetic clinical placements, could be produced in the Higher Education Orientation module in Year 1. This could then be used to peer assess professional skills at predetermined stages throughout both academic and placement education.

## **Conclusion**

Although, further work needs to take place before peer assessment could be implemented in dietetic practice education, I am convinced that it could prove a valuable method of assessment of students dietitians in clinical practice, preparing them for ongoing self and peer assessment throughout their professional careers.

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