

Education

# Teaching Medical Students, what do Consultants think?

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## Abstract

**Background:** The approach to and delivery of medical student education has undergone significant change within the last decade. There has been a shift away from didactic lectures to small group tutorials, facilitated by clinicians. Anecdotally there is an impression that enthusiasm for teaching is waning. The aim of this qualitative study is to assess the current attitudes of consultants, across all specialities, to teaching medical students in small group settings.

**Methods:** A Likert scale questionnaire, relating to teaching medical students in small group tutorials, was distributed via email to all consultants working in one region. Questions considered the categories: attitudes to teaching, financial considerations, time constraints and attitudes to students.

**Results:** 367 responses were received. 72% of responders were actively involved in teaching. 72% of respondents indicated that medical students should be taught by consultants and 80% felt that teaching medical students was enjoyable. 60% felt they were not financially remunerated for teaching and 50% indicated teaching was not included in job plans; despite this a significant proportion of these respondents remain involved in teaching (68%). Non-teachers were more likely to indicate that teaching was not paid for ( $p=0.003$ ). 78% indicated consultants do not have adequate time to teach medical students. 82% felt that medical students appreciate consultant led teaching but only 55% felt students had an appropriate level of enthusiasm for learning.

**Conclusion:** Consultants in this Deanery are actively involved in medical student teaching and enjoy it. Consultants perceive that they are not adequately financially rewarded but for the most part this is not a deterrent. Time constraints are an issue and there is a desire to have teaching included in job plans to counteract this. Most consultants are complimentary about student attitudes but there is a perception that medical students need to contribute more to their own learning.

**Keywords:** Medical Students, Consultant-led teaching, Attitudes.

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## BACKGROUND

The approach to and delivery of medical student education has undergone significant change within the last decade<sup>1</sup>. The current educational process is different to that experienced by senior consultants. There has been a shift away from didactic lectures to small group tutorials, led by clinicians. Cognitive theory, student perceptions, performance measures and advice contained within the General Medical Council document “*Tomorrows Doctors*” have instigated this change<sup>2,3,4,5</sup>. Increases in medical student numbers require more clinicians to be involved. Anecdotally there is an impression that enthusiasm for teaching amongst consultants is waning. Conflicting demands on time, lack of recognition and attitudes of students have been identified by consultants as barriers to teaching<sup>6,7,8</sup>. The aim of this study is to assess the current attitudes of consultants, across all specialities, to teaching medical students in small group settings.

## METHODS

A questionnaire was distributed via email to all consultants working in Northern Ireland. All specialities were represented. Twenty relevant statements were uploaded to *SurveyMonkey*<sup>9</sup>.

Attitudes were assessed utilising a Likert rating scale, with opinion graded from 1 (strongly disagree) to 5 (strongly agree), (see figure 1). Direct questions were included to ascertain respondent demographics and participation in teaching. Free text comments were invited to describe reasons for not teaching, and any additional comments.

The statements used were generated following a round table discussion with 9 consultant surgeons and 10 trainees, of varying grades from foundation year two to registrar. Their opinions on current teaching practices and problems they had experienced were used to formulate the statements in this survey. It was specified that the study related only to

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<b>Attitudes to teaching</b>
Medical students should be taught by consultants
It is more appropriate for junior doctors (SHO or registrar grade) to teach medical students
It is the professional duty of a doctor to teach medical students
Teaching medical students is enjoyable
<b>Financial Considerations</b>
Consultants are financially remunerated for teaching medical students
Consultants who teach regularly should receive a higher salary than those who choose not to
Your trust encourages medical student teaching
Teaching medical students is included in consultant job plans
Teaching medical students is an act of good will
<b>Time Constraints</b>
Consultants have adequate time to teach medical students
Consultants should have dedicated time to teach medical students
Other clinical activities take priority over medical student teaching
Training and assessment of postgraduates has reduced time available for medical student teaching
Postgraduate training and assessment is more important than medical student teaching
<b>Attitudes to Students</b>
There are too many students in a typical group to provide effective teaching
Students appreciate consultant led teaching
In general students have an appropriate level of enthusiasm for learning
Students are reluctant to interact with consultants
Student participation makes teaching more enjoyable
Students should take more responsibility for their own learning

Figure 1. Statements presented in on-line questionnaire. Respondents asked to grade opinion strongly disagree, disagree, neither agree nor disagree, agree, strongly agree.

dedicated small group teaching sessions. The statements were categorised into:

- Attitudes to teaching
- Financial considerations
- Time constraints
- Attitudes towards students

Research Governance permission was granted by the South Eastern Trust Research and Ethics Committee. This institutional review board deemed ethical approval unnecessary. This research was carried out according to the declaration of Helsinki, there was no potential harm to participants and anonymity was guaranteed. Voluntary decision to participate following provision of explanation of study indicated informed consent. Approval from the Medical Director in each trust was obtained.

Responses from those who indicated they were actively involved in teaching were compared with those who were not teaching. Statistical analysis was carried out using Microsoft Excel 2010. Chi-squared test was used for comparison of relevant proportions. A P value of <0.05 was considered statistically significant.

## RESULTS

Our survey was circulated to 1372 clinicians at consultant grade in Northern Ireland. There were 367 respondents (27%), with a 95% completion rate. All clinical specialities were represented. 250 respondents (72%) were actively involved in teaching medical students in small group settings. 99 respondents (28%) indicated they were not involved in this method of teaching (18 did not answer). From these, 89 free text responses were generated. 36% of the respondents chose to make further comment (131 free text comments received). Results were analysed within the four categories.

### ATTITUDES TO TEACHING

A majority of respondents (72%) were of the opinion that medical students should be taught by consultants. More than half (52%) did not think that it was more appropriate for junior Doctors (SHO or Registrar grade) to teach. 329 respondents (90%) indicated that it was the professional duty of a doctor to teach medical students; 21 (6%) did not feel this was the case and 4% had no view. 80% of all respondents felt that teaching medical students was enjoyable.

On sub-group analysis comparing those actively involved in teaching to those who were not, responses followed the same pattern, however consultants not involved in teaching

were less likely to find teaching medical students enjoyable ( $p=0.0004$ ), (see figure 2).

### FINANCIAL CONSIDERATIONS

60% felt that consultants were not financially remunerated for teaching. 68% of those who indicated they were not being paid are still actively involved in teaching (144 out of 211). This had statistical significance when compared with non-teachers (67 out of 211,  $p=0.003$ ). 49% felt that consultants who teach regularly should receive a higher salary than those who do not. Of interest, no significant difference was found between teachers and non-teachers in this regard ( $p=0.195$ ). 50% felt their trust encouraged medical student teaching, with those who teach being more likely to agree with this statement ( $p=0.016$ ). Half of consultants felt that teaching was not included in job plans, with only 35% indicating that it was. Whilst teachers were more likely to agree with this compared to non-teachers ( $p=0.032$ ), 115 consultants still teach regularly without recognition in a job plan. 48% agreed with the statement that “teaching was an act of good will”, 29% disagreed and 23% remained undecided.

### TIME CONSTRAINTS

A majority of respondents (78%) indicated that consultants do not have adequate time to teach medical students. Those who do not teach were more likely to be of this opinion ( $p=0.011$ ). 95% felt that consultants should have dedicated time for teaching. 69% felt that other clinical activities take priority over medical student teaching, only 11% did not feel this was the case. 55% felt that training and assessment of postgraduates had reduced time for teaching medical students, 16% disagreed with this and 29% neither agreed nor disagreed. Only 12% felt that postgraduate training and assessment was more important, with 57% indicating this was not the case.

### ATTITUDES TOWARDS STUDENTS

29% felt there were too many students in a “typical” group to provide effective teaching. The definition of a “typical” group was left open to the readers’ interpretation and experience. 82% felt that medical students appreciate consultant led teaching. 55% felt students had an appropriate level of enthusiasm for learning. Only 22% felt that students were reluctant to interact with consultants. 96% of consultants felt that student participation made teaching more enjoyable. Non-teachers were more likely to indicate there were too many students ( $p=0.023$ ) and that students were reluctant to interact ( $p=0.011$ ).

### DISCUSSION

This study provides one of the largest samples of Consultant opinion relating to undergraduate Medical Student teaching to date. Furthermore, the study encompasses all clinical specialities within a region where students are under the auspices of one University. Self-selection bias may have been introduced towards those with an interest in teaching, although 29% of respondents stated they were not involved in teaching. A legitimate criticism is the use of closed ended statements as these can be interpreted differently by respondents. Unfortunately this is an unavoidable limitation of this methodology.

### ATTITUDES TO TEACHING

Whilst anecdotally enthusiasm for teaching is declining, 80% of respondents indicated they viewed teaching medical students as an enjoyable experience. This is encouraging and confirms findings from previous studies.<sup>7,8</sup>

Guidance within the General Medical Council document “Good Medical Practice 2013” advises that as a profession Doctors “should be prepared to contribute to teaching and

Teachers agree or strongly agree (%)	Statement	Non-teachers agree or strongly agree (%)	P value
87.2	Teaching medical students is enjoyable	64.6	0.0004
23.6	Consultants are financially remunerated for teaching	9	0.003
56	Your trust encourages medical students teaching	36.3	0.016
38	Teaching medical students is included in consultant job plans	28.3	0.032
12.8	Consultants have adequate time to teach medical students	4	0.011
10	Postgraduate training and assessment is more important than medical student teaching	18.2	0.027
27.6	There are too many students in a typical group to provide effective teaching	31.3	0.023
26.8	Students are reluctant to interact with consultants	29.2	0.011

Figure 2. Comparison of responses of those who were actively involved in teaching (250 teachers) vs those who were not (99 non-teachers).

training doctors and students.”<sup>10</sup> It is recognised that there is a vast amount of skills, expertise, experience and knowledge that can only be passed on in a clinical environment. It is therefore not surprising that the vast majority of respondents felt that Doctors, as professionals, should be involved in teaching.

Previous studies have shown that “near-peer” teaching can be comparable to that of consultants, with potential benefits for both students and postgraduates.<sup>11</sup> In this study a majority were of the opinion that students should be taught by consultants, rather than junior Doctors. There was, however, no suggestion that teaching should be exclusively by consultants. Free text comments in general indicated that it is beneficial for students to be taught by all grades, exemplified thus:

*“As to specific roles junior doctors should clearly teach more of the practical ward aspects ... less of the areas where a specialist can deliver a better learning experience.”*

### FINANCIAL CONSIDERATIONS

Funding issues are often contentious. In Northern Ireland funding is provided to individual trusts via Supplement for Undergraduate Medical and Dental (SUMDE) payments. Although the trusts receive this money, 60% of clinicians feel they are not remunerated for teaching.

Since the introduction of the new Consultant contract in the UK, each Consultant session is accounted for, with teaching generally being included in supporting professional activities (SPA's) within a job plan. Specific inclusion of teaching in a job plan varies throughout the trusts in the region, as evidenced by the responses. It has been noted on a national scale that the consultant contract provides flexible use of SPA and as a consequence teaching and training is not necessarily prioritised.<sup>12</sup>

Round-table discussion suggested that lack of payment, or inclusion in a job plan, would discourage clinicians from teaching. Previous investigations into barriers to teaching have cited lack of recognition (financial and direct acknowledgment) as an issue.<sup>7,8,13,14</sup> Based on the responses in this study it is not possible to confirm that this is the case. A significant number of respondents who indicated they were not financially remunerated and felt teaching was not included in job plans are still actively involved in teaching.

### TIME CONSTRAINTS

Previous literature has identified time constraints as a negative influence on teaching.<sup>8,13,14</sup> In this study, an overwhelming majority (two thirds of consultants) indicated they did not have adequate time to teach Medical Students. Unsurprisingly those who do not teach are more likely to be of this opinion. The majority of respondents stated that clinical activity takes priority over teaching. This is not easily avoidable when utilising the skills of clinicians as teachers. This finding is consistent with previous studies that indicate students find quality of teaching adversely affected by clinical duties; resulting in missed sessions, lateness and interruptions.<sup>15</sup>

Since the implementation of *Modernising Medical Careers* the input required from consultants for training and ongoing assessment of postgraduates is more arduous.<sup>16</sup> Interestingly, only 12% of respondents felt that postgraduates were more important than medical students.

The reasons for lack of time are likely to be multifactorial and vary depending on speciality. 95% of consultants felt that they should have dedicated time for teaching. GMC guidance contained within “*Tomorrows Doctors*” 2009 advises that “teachers and trainers should have dedicated time in their job plans (or training schedules) to deliver their educational responsibilities and undertake their own training and development.”<sup>17</sup> It has been suggested elsewhere that those who choose to teach in a formal setting should be afforded protected teaching time, whilst others in a particular unit concentrate efforts elsewhere.<sup>13</sup>

### ATTITUDES TOWARDS STUDENTS

There are currently 250-280 students per year enrolled in the Medical School at Queens University, Belfast. The UK Department of Health considers the ratio of clinician to student to be 1:10 for small group tutorials (and 1 in 6 for bedside teaching). In this study only one third considered the groups to be too large. Free text comments implied a problem with the number of tutorials required as a consequence of increasing student numbers:

*“small group teaching is impossible with groups of 28 students unless 3-4 senior doctors are available”*

Four fifths of consultants surveyed, felt the students appreciated consultant led teaching and virtually all respondents felt that student participation made teaching more enjoyable. It was not possible to ascertain whether student participation regularly occurs, or if these were aspirational comments only. In order to explore this further, respondents were asked if students were reluctant to interact with consultants. Traditionally there is a professional boundary between the two groups and in some cases consultants can be considered intimidating.<sup>15</sup> A minority however, felt that students were reluctant to interact. It is unlikely that students will behave identically with every consultant, as was succinctly put in free text comments

*“consultants are not a homogenous group.”*

Informal complaints are often made about the enthusiasm and commitment of students.<sup>7,14</sup> Therefore respondents were asked if students had an appropriate level of enthusiasm for learning. Over half of those surveyed agreed that they do. Whilst what is “appropriate” is open to interpretation, this result reflects positively on medical students. Nonetheless free text comments were not fully supportive. 22 of 131 comments focussed on lack of enthusiasm, summarised by a statement reflecting a common thought process:

*“Many groups of med students lack the curiosity that leads to enjoyable learning (and teaching). They appear to be exam led rather than led by curiosity and enthusiasm for active*

learning. It was ever thus but my impression is that it is worse than previous.”

To demonstrate the other extreme of opinion,

“...it is a privilege to be able to teach such enthusiastic young people.”

It is likely that enthusiasm changes depending on the student, the teacher, the teaching environment or even the time of day. From the responses received the majority feel the level of enthusiasm is appropriate, however the opinions of those in disagreement were strong enough to evoke further comment. In general there appears to be a degree of polarisation with regard to this statement in particular.

Underpinning the changes to medical student education is the ethos that students should not be overloaded with information, but be encouraged to develop independent thought.<sup>5</sup> Self-directed learning is therefore an important part of any modern curriculum. Over two thirds of consultants felt students need to take more responsibility for their own learning. This opinion is exemplified by the following comment,

“Basic knowledge of ... medical students is so poor as is their attitude to their responsibility to contribute to their own learning that it is VERY difficult to advance the teaching beyond the most basic or remedial”

This perception (which is not an isolated opinion) is not ideal and may be an area that requires further investigation.

## CONCLUSION

Consultants in this Deanery are actively involved in medical student teaching and enjoy it. They have a perception that they are not financially rewarded but for the most part this is not a deterrent. Time constraints are an issue and there is a desire to have teaching included in job plans to counteract this. Medical student numbers were not identified as an issue in the setting of small group tutorials. There is a perception that medical students need to contribute more to their own learning, nonetheless the majority of consultants are complimentary about student attitudes and recognise that interaction and appreciation contribute greatly to the enjoyment of both teacher and student.

The authors report no declarations of interest.

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