

Article

Medical Student Perceptions of Near Peer Teaching within an Histology Course at the University of Sassari, Italy

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Abstract: Near peer teaching (NPT) is becoming recognized as a valuable instrument with advantages for both students and teachers. Despite the recognized benefits, NPT programmes are not usually embedded within university healthcare curricula and, to our knowledge, there have been few studies assessing medical students' attitudes towards NPT for histology courses. Our study is the first that assesses medical students' perceptions concerning the value of NPT for a course in the human organ histology component of anatomy. A NPT programme was provided for second-year medical students and delivered during laboratory sessions for microscopic anatomy. The NPT tutors were recruited from third-, fourth- or fifth-year medical students. The medical students completed a questionnaire to assess their attitudes towards NPT. The initial hypothesis tested was that students preferred to be taught by their professional teachers and not by NPT tutors. A total of 113 students completed the questionnaire (46% response rate). Of these, 70% of respondents rated the support of the NPT tutors as being excellent or good. Furthermore, 60% of respondents agreed that the NPT programme should be introduced officially into the medical curriculum. The findings are not consistent with our initial hypothesis, and suggest that NPT could be a valuable instrument for the understanding of histological concepts.

Keywords: near peer teaching; histology; medical students; attitudes



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1. Introduction

The teaching of the anatomical sciences within medicine is undergoing marked changes. The time allocated for the anatomical sciences has decreased significantly in the last decade [1–5] and, because class sizes in many medical schools have enlarged, there has been a reduction in contact between students and teachers [6]. As a result, numerous studies have reported a general decline in anatomical knowledge [7–9]. This would have an impact on the quality of learning if associated with increasing number of medical students opting for superficial, rather than deep, learning [10,11]. Because of such issues, teachers of the anatomical sciences have often had to develop strategies in order to reinforce engagement among medical students [12–14]. For the teaching of histology, Drake et al. [1,15,16] and McBride and Drake [15] have highlighted the changes in the teaching of histology in U.S. medical schools between 2002 and 2018. They reported that, by 2018, on average a U.S. medical school delivered 29 h (+18 h SD) of histology lectures and 22 h (+17 h SD) of histology practicals. This compares with most medical schools having between 51–60 h of practicals in 2002. It should be noted that, in contrast to the findings in 2002, some medical schools in 2018 gave neither lectures nor practicals in histology. Furthermore, in 2018 only 2% of courses were stand-alone, 57% existed in a fully integrated curriculum, and 41% were part of a partially integrated curriculum. The greatest change seen relates

to the use of microscopes. In 2014 and 2018, approximately 80% of courses relied upon extensive use of virtual microscopy, and this compares with 71% in 2009 and only 14% in 2002. Students' appreciation versus virtual slides has been demonstrated, especially if associated with a program of vertical integration of histology with histopathology [16]. Changes to the delivery of the medical curriculum have been exacerbated by the advent of the COVID-19 pandemic. Computer-based teaching and learning is becoming the main mode of operations following the need to effectively suspend practical tuition because of 'social distancing', as dictated by the Italian Law Decree number 6, 2020 (G.U. 9 March 2020) and advised by the Association of American Medical Colleges [17]. Undoubtedly, once the pandemic is controlled, there will be much debate concerning how the teaching of the anatomical sciences should develop. While it is to be expected that much of this debate will centre upon how to teach practicals, the use of such platforms as 'Zoom' and 'Teams' has shifted the relationships between teachers and students. In this regard, amongst other considerations, there should be further evaluation of the use of near peer teaching programmes (NPT) within the anatomical disciplines. Peer tutoring is thought to be a valuable educational instrument within medicine [12,18–22] and within anatomy [23–27]. Furthermore, it is considered an effective method for improving students' learning and for alleviating workload demands on instructors [28]. The strength of this educational tool is said to be related to a "cognitive and social congruence" between the peer-teacher and student such that peer-teachers permit more effective communication by enabling knowledge sharing between participants of similar linguistic abilities and of social roles (thus, favouring an improvement in comprehension and the process of learning) [20,29]. Moreover, anxiety levels are said to be reduced, with the students feeling more relaxed when taught by peer-teachers [30,31]. This aspect can be important, as it is documented that psychological stress can have an adverse effect on motivation [29,32]. The student that teaches can be of the same age and level of experience (peer teaching, PT), or can be older and at a more advanced level (near-peer teaching, NPT) [33]. Even if PT and NPT are sometimes used synonymously, in reality there is a major difference in that NPT tutors and learners are not in competition academically [28,34]. For NPT, the academic seniority of the peers is usually 1–4 years [35], and it has been reported that small increases in age difference between NPT tutor and learner have an impact upon the students' perceptions [36]. As such, NPT may be considered to have several advantages. Firstly, the students can receive support from colleagues who have recently learned a subject and who have overcome difficulties and are, thus, considered better equipped to help [20,23,37]. Secondly, without the social barriers perhaps associated with faculty members, the students can feel freer to identify, and articulate, problems, being, therefore, less inhibited in asking for assistance from NPT tutors [38]. Thirdly, the faculty benefits from voluntary NPT tutors who supplement the delivery of the curriculum [39]. Fourthly, and in terms of advantages to the NPT tutors, he/she can consolidate his/her anatomical knowledge, reviewing material previously learned [37,40]. In this context, senior students have reported that, after their participation in NPT programmes, their anatomical knowledge improved as well as their teaching skills [41]. Despite the recognized benefits, NPT programmes are not usually embedded within university healthcare curricula [42] and, to our knowledge, there have been few studies assessing medical students' attitudes towards NPT for histology courses. Furthermore, few studies have examined the effectiveness of NPT using objective methods [43,44]. For histology, NPT use has been reported by Bloodgood [45] and Sander and Golas [46]. However, these studies, while providing insights into new ways of delivering histology tuition, only alluded to peer teaching, and did not provide evidence for student acceptability. Our study is the first that assesses students' opinion about a NPT programme within a course in the human histology component of anatomy, an understanding of morphological features of tissues being essential for the comprehension of physiological tissue function [46,47]. Here, NPT was introduced to encourage a more active participation of students during laboratory sessions and in the expectation of increasing their level of enthusiasm during practicals. It is anticipated that this study will aid our understanding of

the degree of student acceptance of this form of teaching and learning for histology, as well as contributing to the debate about whether this methodology could reduce the teaching burden on staff. Given media coverage of student complaints about not being taught by academics, our initial hypothesis was that students prefer to be taught by their professional teachers and not through NPT.

2. Materials and Methods

2.1. Study Design

This was an observational, cross-sectional study.

2.2. Population of the Study

The NPT programme is provided to second-year medical students. Each student has 8 h of NPT. In terms of the number of students available to participate in this survey, 245 students have attended the NPT sessions. Seven NPT tutors were enrolled on the course assessed in this study, one or two being employed per session. The NPT tutors were recruited from third-, fourth- or fifth-year medical students. The following criteria were used to recruit NPT tutors: expression of interest, stated degree of enthusiasm, motivation for peer teaching, and achievement of high grades in the final examination of the anatomical sciences course (grade range: 28–30). The grading system at Italian universities ranges on a 0 to 30 point scale for each examination. Academic performance describes the outcomes achieved by each student measured through the grade point average. In order to successfully complete the course, a minimum grade of 18 has to be achieved in all examinations. There was no prior orientation for the NPT tutors, as they were given academic freedom to deliver their session in a format of their own choosing (including the choice of microscopic slides). However, they were informed that their involvement was voluntary and that the peer teaching should not interfere with their own timetabled curricular activities. Informal debriefing following each NPT session took place to assess each session and to enable any necessary changes to be made to subsequent sessions. A NPT tutor was not allocated to just one specific group of students but rotated around all the students so that the class was taught by all NPT tutors.

2.3. Protocol including Procedural Details

The NPT programme, comprising in total 64 h per year, is provided during the microscopic anatomy laboratory sessions. The human microscopic anatomy course being investigated is delivered during the second year of the undergraduate curriculum at the Sassari's Faculty of Medicine. This course is an integral part of the human anatomy course. Course delivery is via face-to-face lectures using PowerPoint presentations and via practical sessions performed in microscopy laboratories where every student uses a light microscope to examine histological slides. Virtual microscopy is not employed for the tuition. Each student undertakes 8 h of practicals. The human microscopic anatomy course is concerned with organ histology and the order of topics is as follows: the cardiovascular, respiratory, digestive, urinary, genital, endocrine, nervous, and lymphatic systems, and the skin.

Each class was divided into 8 groups of 15 or 17 students, each group having a 1 hour NPT session per week. Attendance was compulsory and none of the students surveyed had any experience of NPT in any part of the medical curriculum. The NPT tutors started each session with a brief introduction to the topic, projecting images of histological samples that students had observed by optical microscope. The NPT tutors were at their disposal for the entire practical session to answer questions and to clarify any issues they had during their perusal of histologic sections.

2.4. Protocol of the Evaluation

Assessments involved two mid-term laboratory examinations and one final oral examination. For the laboratory examinations, digitized slides were created for the assessments with a 3D scanner, saved on a local computer, and printed on paper. Before commencing

ing this examination, detailed instructions were given to the students who then had to observe and describe six printed images. The assessment was registered as either pass or fail. For the oral examination, students were questioned on topics and material that have been taught in class and which involved examining, describing, and identifying two or three microscopic slides. The marks obtained were combined with the marks for the gross anatomy and neuroanatomy parts of the anatomy curriculum, and the final grade was awarded on a 30-point scale.

2.5. Tasks of Exam

The tasks of the exam were as follows:

- Observe the sample with the lowest power objective and describe the plane of section and the general characteristics of parenchyma tissue;
- Changing to the next objective lenses, identify the variety of cell and tissue components. Name the anatomic structures that comprise a tissue/organ and visually locate them on the histologic section;
- Recognize and distinguish the organ. Integrate the relationship between tissue structure and its function.

2.6. Data Collection

Following completion of the histology course, the medical students (tutees) completed a questionnaire that assessed their attitudes concerning the NPT programme. The questionnaire was hardcopy (not digital), and was distributed to the students during a lecture at the end of histology course. The questionnaire was distributed and collected by NPT tutors, and the teachers were not present in the room during the completion of the questionnaire. This was accomplished to avoid any type of influence on the students. The questionnaire was not based on a pre-existing questionnaire but was developed, and shared, by all investigators. It comprised of 22 items. Nine items provided quantitative data based upon 5-point Likert scales (1 poor, 5 excellent). Twelve items were multiple choice. One item provided for open-ended student responses, although no student took the opportunity to engage with this item. The items in the questionnaire were devised mainly to provide feedback on the efficiency and usefulness of the NPT programme. Students were also asked about the level of tutor knowledge and about tutor ability to provide understandable explanations. In addition, general information was obtained concerning sex, age, year of attendance, mark attained in anatomy examinations, what was considered the most difficult topic, and what strategies were used to overcome obstacles. The NPT programme was a pre-existing, normal timetabled part of the curriculum. In accordance with Italian legislation concerning the guidelines for the performance of observational studies (G.U. n. 76. 31-3-2008), university surveys involving students and university staff do not need ethical approval and informed consent, although permission to conduct the investigation was obtained following review by the Dean of Medicine and the Surgery Faculty. In accordance with good practice, student participation was voluntary, and students were aware that they could leave the study at any time. Furthermore, all students were properly informed of the study's purpose and were granted anonymity and confidentiality regarding their data.

2.7. Statistical Analysis

The data were recorded in a database for statistical processing and an ad hoc electronic form was used to collect all study variables. Variables were described with absolute and relative (percentage) frequencies. When appropriate, in-between group comparisons of questionnaire items were performed with Chi-squared or Fisher exact tests. A two-tailed p -value of less than 0.05 was considered statistically significant. When analysing the results, STATA version 16 (StataCorp, College Station, TX, USA) was the statistical package used to perform all statistical computations.

3. Results

In total, 113 students (113/245, or 46% of the class) consented to participate in this study by completing the questionnaire. Of these, 56% of the students (63/113) were female. The age of participants ranged from 20 to 30 years, with a mean of 22.7 years (± 1.6 SD). The level of academic performance was high (grades from 28 to 30) for 66 students (66/113, 58.4%), medium (grades 26 to 27) for 38 students (38/113, 33.4%), medium-low (grade 24–25) for 4 students (4/113, 3.5%), and low (grade < 24) for 4 students (4/113, 3.5%). Sample characteristics are presented in Table 1.

Table 1. Characteristics of the student sample in the survey.

Characteristics	
Number of participants in survey	$n = 113$
Mean age	22.7 years (± 1.6 SD)
Female participants	$n = 63$ (56%)
Male participants	$n = 50$ (44%)
Academic performance (scores < 24)	$n = 4$ (3.5%)
Academic performance (scores 24–25)	$n = 4$ (3.5%)
Academic performance (scores 26–27)	$n = 38$ (33.6%)
Academic performance (scores 28–30)	$n = 66$ (58.4%)

Most students (107/113, 94.7%) declared having difficulty in studying the anatomical sciences. Among these, 40 students (40/113, 35.4%) claimed to have had “great” difficulty, while 67 students (67/113, 59.29%) reported having “moderate” difficulty (Table 2). The histological topic considered most complicated was the nervous system (88/113, 78%).

Table 2. Descriptive analysis of the most frequent student response about difficulties and time spent to study anatomy according to gender and medical students’ academic performance (number and percentages).

Question Posed	Most Frequent Student Response	Total ($n = 113$)	Female ($n = 63$)	Male ($n = 50$)	Academic Performance Scores			
					<24 ($n = 4$)	24–25 ($n = 4$)	26–27 ($n = 39$)	28–30 ($n = 66$)
Did you find studying anatomy difficult?	Medium difficulty	67 (59.3)	38 (60.3)	29 (58.0)	3 (7.5)	3 (75.0)	18 (46.2)	43 (65.2)
To overcome difficulties, did you use:	Peer and senior colleagues	58 (51.8)	34 (54.0)	24 (49.0)	1 (33.3)	2 (50.0)	18 (46.2)	37 (56.1)
How many hours per week did you spend studying anatomy	>20 h per week	87 (77.0)	50 (79.4)	37 (74.0)	1 (25.0)	3 (75.0)	26 (66.7)	57 (86.4) *

Note: * Statistical significance (p -value < 0.05).

To overcome these difficulties/problems, 58 students (58/113, 51.8%) reported asking for assistance only of their immediate colleagues within the same year (Table 2). Additionally, 23 students (23/113, 20.4%) stated that they consulted the Internet, while 6 students (6/113, 5.3%) preferred to ask their academic staff. The rest (25/113, 25%) consulted multiple sources simultaneously (peer and senior colleagues, teachers, and the Internet).

Most students (79/113, 70%) rated the support of the NPT tutors as excellent or good (excellent for 24 students (24/113, 21%) and good for 55 students (55/113, 49%). This finding was statistically significant ($p = 0.04$) (see Table 3). Students also judged the anatomical knowledge of their NPT tutors as being good (74/113, 65.5%) or excellent (33/113, 29%), and 30 students (30/113, 27%) claimed that the NPT tutor support could

have had an influence on their academic performance (a 5 and 4 on the Likert scale, with 6/113 or 5.3% and 24/113 or 21.2%, respectively). Explanations provided by the NPT tutors to help clarify and resolve doubts, and was assessed as being beneficial by many of the students (97/113, 86%), with assessments of it being extremely helpful (7/113, 6.2%), very helpful (31/113, 27.4%), and helpful (59/113, 52.2%) (Table 3).

Table 3. Descriptive analysis of the most frequent student responses about the quality of NPT tutors and of the support provided (number and percentages).

Question Posed	Most Frequent Student Response	Total (n = 113)	Female (n = 63)	Male (n = 50)	Academic Performance Scores			
					<24 (n = 4)	24–25 (n = 4)	26–27 (n = 39)	28–30 (n = 66)
Your evaluation of the support provided by the peer tutors (1 = poor; 5 = excellent)	4	55 (48.7) *	31 (49.2)	24 (48.0)	0 (0.0)	1 (25.0)	20 (51.3)	34 (51.5)
Your evaluation of the quality of microscopic anatomy practicals with peer tutor support (1 = poor; 5 = excellent)	4	54 (47.8)	27 (42.9)	27 (54.0)	2 (50.0%)	4 (100.0)	21 (53.9)	27 (40.9)
Evaluation of the anatomical knowledge possessed by peer tutors (1 = poor; 5 = excellent)	4	74 (65.5)	42 (66.7)	32 (64.0)	4 (100.0)	4 (100.0)	22 (56.4)	44 (66.7)
Do you believe that the peer tutors' support positively influenced your exam performance? (1 = not at all; 5 = very influential)	3	43 (38.1)	22 (34.9)	21 (42.0)	0 (0.0)	1 (25.0)	16 (41.0)	26 (39.4)
Where you had academic problems, did the NPT provide clear helpful solutions? (1 = not helpful; 5 = extremely helpful)	3	59 (52.2)	33 (52.4)	26 (52.0)	2 (50.0)	1 (25.0)	20 (51.3)	36 (54.6)

Note: * Statistical significance (p -value < 0.05).

Many students (68/113, 60.2%) agreed that NPT programmes should be officially introduced into the medical curriculum (5 and 4 on the Likert scale in 28/113 ($p = 0.04$) or 24.8%, and 40/113 or 35.4%, respectively) (Table 4). A similar number of students (62/113, 55%) agreed that the NPT programme should be extended into other parts of the anatomy course.

Of the 113 students, 55 (49%) expressed a preference for the NPT tutors to be recruited from the third year (Table 4), with 24 out 113 students (21%) wishing for NPT tutors to be recruited from the fourth year; 9 out 113 (8%) and 4 out 113 (3.6%) expressed a preference for the NPT tutors recruitment from fifth and sixth year respectively. Furthermore, 16 out 113 students (14.3%) expressed multiple preferences (NPT tutors recruited from the third, fourth, and fifth year). Finally, 4 out 113 students (3.6%) recorded no preference.

The sample was stratified by gender and academic performance. No overall differences were found between females and male. Stratification by academic performance evidenced how the amount of time devoted to the study of anatomy can influence the academic performance in a significant way (>20 h per week, $p = 0.008$; 5–10 h per week, $p = 0.04$) (Table 2).

Table 4. Descriptive analysis of the most frequent responses about the possibility of introducing the NPT programme into the medical curriculum (number and percentages).

Question Posed	Most Frequent Student Response	Total (n = 113)	Female (n = 63)	Male (n = 50)	Academic Performance Scores			
					<24 (n = 4)	24–25 (n = 4)	26–27 (n = 39)	28–30 (n = 66)
Should NPT be used for all medical school subjects? (1 = Do not use NPT; 5 = Definitely use NPT)	4	40 (35.4)	19 (30.2)	21 (42.0)	1 (25.0)	4 (100.0)	12 (30.8)	23 (34.9)
Should NPT be used for all anatomical topics (not just microscopic anatomy)? (1 = Do not use NPT; 5 = Definitely use NPT)	4	39 (34.5)	22 (34.9)	17 (34.0)	1 (25.0)	4 (100.0)	13 (33.3)	21 (31.8)
Where in the medical course would you prefer peer tutors to come from in order to provide the best NPT experience?	Year 3	55 (49.1)	31 (49.2)	24 (49.0)	1 (25.0)	1 (25.0)	21 (55.3)	32 (48.5)

4. Discussion

Many and various pedagogic methodologies have been employed for the teaching and learning of the anatomical sciences within medical curricula. To date, which method is most effective remains debatable, and the literature on this matter is voluminous [14,48–52]. This study aimed to explore students' attitudes toward the usefulness of NPT in a component of the anatomical curriculum concerned with organ histology. Students often do not appreciate the relevance of histology in understanding the complexity of tissue organization, function, and pathological processes [53]. Moreover, it is considered as one of the most neglected parts of human anatomy, probably because this knowledge is not reused sufficiently during the retention interval [54]. Histology seems difficult for students due to the nature of the subject itself and due to students' poor experience with microscopy and the interpretation of histological images. Consequently, we decided to provide enhanced support to our students, and NPT was introduced to encourage more active student participation during laboratory sessions. We hoped, therefore, for increased levels of enthusiasm during practicals. Previously, when tutoring was conducted by teaching staff, very poor student involvement was reported. While the findings are in line with other evidence supporting the efficacy of NPT within medical courses [12,18–22,28–30,55–60] and within anatomy [23–27], this appears to be the first report relating student attitudes toward NPT in an histology course. The present study suggests that the students consider that NPT is an effective instrument for the learning and understanding of histological concepts. The students identified the NPT programme as a facilitatory tool for overcoming the challenges they face when confronted with difficult topics. That the students found the histology of the nervous system to be particularly challenging is in accordance with other studies recording the difficulty of learning neuroanatomy, with 'neurophobia' among medical students being well-documented [61–63]. Among the various strategies applied to the teaching of the anatomical sciences [10,14,64,65], NPT could be a useful teaching approach, not only for consolidating anatomical knowledge, but also for improving students' engagement, interactions, and self-awareness of their own abilities [31,38,66]. The benefits of NPT can also be influenced by the 'distance' in age, educational experience, and social standing between tutors and students. Should this 'distance' be too great, then there might be a negative effect on the students' performances. Indeed, students in the current study expressed a preference for NPT tutors from the third year of the medical course. This is in

accordance with the findings of Hall SR et al. [36], who reported that the 'distance' between tutor and learner could have an impact upon students' perception of their learning. This study reported that, even if there was not a difference in the quality of teaching between senior medical students and junior doctors, senior medical students were clearly preferred in multiple areas of NPT feedback. Similar results were found by Stephens JR et al. [37], with the sessions delivered by third- and fourth-year medical students being rated significantly better than those delivered by fifth-year students and junior doctors. They further reported that the greatest differences were related to the approachability of the teacher and the enjoyment of the session, results confirming that social and cognitive congruence are two decisive factors for NPT. Moreover, the study of Scott JL et al. [6] suggests that the "Shadow Modules" (peer-mediated learning) they described were most productive when the intervention of academic staff was strictly limited. The current study found that the students appreciated that all NPT tutors had a good level of anatomical knowledge, suggesting that all NPT tutors successfully fulfilled their roles and effectively communicated their knowledge, even in the absence of prior orientation for the NPT tutors. Furthermore, most of the students favoured fully integrated NPT programmes being introduced officially into the anatomical curriculum. This is in line with the study of Harrison et al. [38], where it was reported that learners approved of introducing NPT tutors into the curriculum. By contrast, others consider that NPT programmes should only be supplementary interventions [67,68]. However, NPT is not the only strategy that has been developed to increase student motivation by incorporating some elements of cooperative teaching and learning. For example, Oakes et al. [27] reported using a "Jigsaw Method" to teach abdominal anatomy, and Salomaki et al. [66] are advocates of using students as teachers in an anatomy dissection course. In addition, instead of using students as teachers, Scott et al. [6] devised 'Shadow Modules' where students complemented the courses taught by academics by devising and discovering resources for learning that could be shared with fellow students. All these strategies are based on student-centred approaches and, according to the Vygotsky theory [69], interactions with peers that are more competent and knowledgeable improves learning and some higher-level skills such as problem-solving. Time was the main issue for staff teaching, but it was necessary to meet and select tutors, to prepare the practical sessions, to organize the two mid-term laboratory examinations and the final exam and, finally, to be always at disposal of NPT tutors for any demand they might have. Concerning the NPT tutors, even though they had no previous experience, their feedback indicated that they very much appreciated being given the opportunity of teaching, especially since they came to recognise that they possessed the appropriate levels of motivation to communicate anatomical/histological concepts in an approachable way to their more inexperienced peers.

5. Limitations

The reliability of our observations is limited by the study's small sample size and by the absence of a control group. An increased number of participants in the study would have increased the power of our findings. The absence of a control means that a causal relationship could not be established. However, running a control group raises ethical concerns, as it means that this group is disadvantaged by not being offered the same level of support as the NPT group support. This study is a first step in suggesting that this approach is worth exploring. Furthermore, the results are based upon perceptions/attitudes, and are not based upon outcomes of examinations nor upon attitudes towards the importance, or clinical relevance, of the topics. However, in relation to students' strategic learning approaches, an assessment of students' perceptions about the method of learning they want to adopt to achieve results is of importance. A future study on NPT might also be undertaken with respect to students' different learning styles as well as learning strategies, although the efficacy of learning styles for the anatomical sciences is disputed. While variation in the quality of NPT tutors (mainly related to the absence of a training course) may have influenced the findings, we found that the quality of tutors was rated by the

students to be ‘excellent’. Finally, self-reported questionnaires could potentially have a demand bias, with students answering according to what they believe the teachers want to hear. This bias has been ameliorated by ensuring the anonymity and confidentiality of the survey.

6. Conclusions

Many countries are increasing the numbers of students studying at university. Furthermore, there are often increased pressures placed upon academics to bring in research monies. As a consequence, some academics have teaching-only contracts, and teaching is sometimes passed down to postgraduate students and/or post-doctoral associates. Indeed, students have often complained in the media that they are not being taught by senior academics. In this context, and with the increased use of online teaching [70–72], higher education tuition is changing, such that universities are turning away from traditional face-to-face education, even if more hybrid models are being introduced [12,73–75]. It was as a result of these ‘undercurrents’ that we initially proposed the hypothesis that students prefer to be taught by their professional teachers and not by NPT. Our findings do not, however, support this hypothesis, as medical students have a positive attitude towards a NPT programme where benefits accrue because of cognitive and social congruence between tutors and tutees. In terms of our educational objective in instigating NPT, our findings provide academics, students, and those responsible for medical education at our university confidence that NPT can provide an important element in the training of medical students. We suggest that the integration of NPT into the anatomical sciences curriculum should be actively considered during the development of medical curricula. Curriculum change is a gradual learning process for learners and teachers that should be preceded by a theoretical analysis of educational concerns and strategies [76]. In this regard, when NPT programmes are introduced, we recognise that there is a need to incorporate a parallel programme of quality assurance to ensure content accuracy.

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Informed Consent Statement: In accordance with Italian legislation concerning the guidelines for the performance of observational studies (G.U. n. 76. 31-3-2008), university surveys involving students and university staff do not need ethical approval and informed consent.

Data Availability Statement: All data generated or analyzed during this study are included in this published article.

Conflicts of Interest: The authors declare no conflict of interest.

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