

Patient feedback on medical students in tertiary health care: are medical students accepted in clinical practice?

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Background. Clinical teaching is central in the training of medical students. Although medical studies without practice are hard to imagine nowadays, for most patients this type of learning is still difficult to understand and not always acceptable.

Materials and methods. A prospective anonymous survey of 150 participants was carried out. Participants were patients at the Surgery Department of the Kauno Klinikos Hospital of the Lithuanian University of Health Sciences. The questionnaire comprised 12 questions: the first two on the patients' personal information and the rest about the patients' opinion about medical students. Statistical analysis software IBM SPSS Statistics 23.0 was used for statistical data analysis. A statistically significant difference was observed when $p < 0.05$.

Results. Seventy-eight per cent of patients would allow medical students to be present during their surgery; 78.7% would permit medical students help the anaesthetic team with procedures; 79% responded that students were not introduced, and 21.3% stated that they were informed about students' involvement for learning purposes. The majority of the respondents (62%) answered that the main advantage was additional practical skills. Talking about disadvantages, 25% of the respondents thought that students were not professional enough, 6% were worried about an overcrowded operating theatre, yet the majority of patients (69%) did not worry about this.

Conclusions. The majority of patients would agree with the involvement of medical students in their surgical operations and induction of anaesthesia. The patients pointed out that the general reason for their concern over surgical operations was that the students were not professional enough and did not have required skills. Most patients thought that involving students in their surgical operations did not have negative influence on surgery quality.

Keywords: medical students, patients, medical education, clinical skills

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INTRODUCTION

Professor William Osler said, “The good physician treats the disease; the great physician treats the patient who has the disease”. Clinical teaching is the most important for the education of medical students and nowadays studying medicine without practice is hard to imagine (1, 2). Experience with patients remains a vital component in the education of medical students and essential for the acquisition and development of professional clinical skills in the performance of their tasks (3–5).

Health care-related society education is gradually improving and patients are becoming increasingly aware and critical towards the quality of their treatment. With increased focus on patients’ rights and informed consent, patients can choose to accept or refuse the involvement of medical students in their health care (5–8).

However, for most patients this type of learning is still difficult to understand and not always acceptable, and conflicts can arise between the educational requirements of medical students and the needs of the patients (9).

In their study, Santen et al. demonstrated that patients primarily wanted to be informed if medical students were performing a procedure for the first time (10). They also noted that the formal syllabus of medical education included the importance of informed consent, but patients were not always informed about the students’ role in their medical care (10). The American Medical Association, the Royal College of Obstetricians and Gynaecologists, and other groups have published warnings to the effect that patients must be informed of the training status and the purpose of involvement of all individuals taking part in the patients’ care (10–13). Unfortunately, studies have shown that medical students and faculties of teaching hospitals do not always follow this recommendation (10–15).

Previous studies have shown that patients are generally tolerant of medical students, but a recent study in Jeddah University Hospital has shown that only 51% of patients indicated a positive attitude towards involving medical students in clinical examination and care (16–22).

The aim of this study was to identify the attitudes of Lithuanian patients towards the presence of medical students during surgeries and induc-

tion of anaesthesia and to identify the factors that determine those attitudes.

MATERIALS AND METHODS

Study design and participants

The prospective study was carried out at the Department of Surgery of the Kauno Klinikos Hospital of the Lithuanian University of Health Sciences and involved 150 patients. The study was conducted from September 2016 to October 2018 inclusively. It aimed at assessing the admitted patients’ attitude towards the involvement of medical students in their health care.

Data collection tools and activities

We developed a self-administered structured questionnaire that comprised 12 questions: the first two on the patients’ personal information (age, gender) and the remaining ten about their reactions toward and acceptance of medical students. We asked if the patients permitted medical students to be present in the outpatient clinic during their surgeries and about the main reasons of concern related to medical students’ involvement in their health care.

Ethical considerations

A written informed consent was obtained from each participant. The study objectives were explained to the participants who also were assured of the confidentiality of the collected information and of their free choice to decline participation in the study. Study permission was given by the Lithuanian University of Health Sciences Centre of Bioethics (No. BEC-MF-397).

Statistical analysis

Data were analysed with the Statistical Package for Social Sciences (IBM SPSS v.23.0). Categorical variables were compared using Chi-square (χ^2) and Fisher exact tests, and continuous variables were compared using Student’s *t*-test. Differences were considered as statistically significant when $p < 0.05$. We computed descriptive statistics for all variables to present their frequencies and percentages.

RESULTS

One hundred-fifty patients were interviewed in this study. There were 68 men and 82 women

participants. The mean age of the respondents was 59 ± 16.7 years.

The Table summarizes the patients' attitudes towards the education of medical students, which appears to be generally positive: 117 patients (78%) would allow medical students to be present during their surgery, and 118 (78.7%) would permit medical students help the anaesthetic team with procedures (for example, putting a drip into the back of their hand). There were no statistically significant difference between men and women ($p > 0.05$).

Also, it was noticed that only a minority of patients believed that students had a negative influence on their health care. Women and young patients (<45 years) were more likely to be negative in their attitude ($p < 0.05$).

Finally, the most interesting fact was that only 60% of the patients distinguished between medical students and resident doctors.

The Figure illustrates the patients' opinion about the advantages and the disadvantages of students' participation in surgical operations. The majority of respondents (62%) thought that the main advantage was additional practical skills,

26% identified potential educational merits, and 12% stated that students received an opportunity to communicate with patients. Talking about the disadvantages, 25% asserted that students were not professional enough, 6% would be worried about an overcrowded operating theatre, and the remaining 69% did not worry about this. We noticed that there were no statistically significant differences between men and women ($p > 0.05$), but young patients were statistically significantly more worried than the older ones ($p < 0.05$).

DISCUSSION

Patients hospitalized before their surgery have numerous fears and many of them focus on anaesthesia. This study contributed to the understanding of the attitudes of Lithuanian patients' towards the involvement of medical students in clinical teaching. Overall, the degree of acceptance of medical students was high, similarly to what has been reported in many other studies from the developed countries (23–26).

While the main advantage of the involvement of medical students in health care was specified as

Table. Patients' attitudes towards the learning of medical students

Question	Yes <i>n</i> (%)	No <i>n</i> (%)	Don't know <i>n</i> (%)
1. Have medical students ever participated in your operation?	33 (22)	57 (38)	60 (40)
2. Are you nervous about the possibility of medical students' participation in your surgery?	14 (23.3)	46 (76.7)	
3. Would you permit medical students to be present during your surgery one more time?	117 (78)	33 (22)	
4. Would you permit medical students to be present in the operating theatre during the induction of anaesthesia?	133 (88.7)	17 (11.3)	
5. Would you permit medical students help the anaesthetic team with procedures?	118 (78.7)	32 (21.3)	
6. Do you think that medical students' participation in your surgical operation negatively affects the quality of surgery?	12 (8)	138 (92)	
7. Do you think that medical students' participation at your surgical operation negatively affects your relationship with the doctor?	29 (19.3)	121 (80.7)	
8. Does participation of medical students restrict you from asking the doctors personal health questions about your condition and further treatment?	21 (14)	129 (86)	
9. Do you distinguish between medical students and resident doctors?	90 (60)	60 (40)	
10. Have you been informed about participation of medical students during your surgical operation?	32 (21.3)	118 (79.7)	

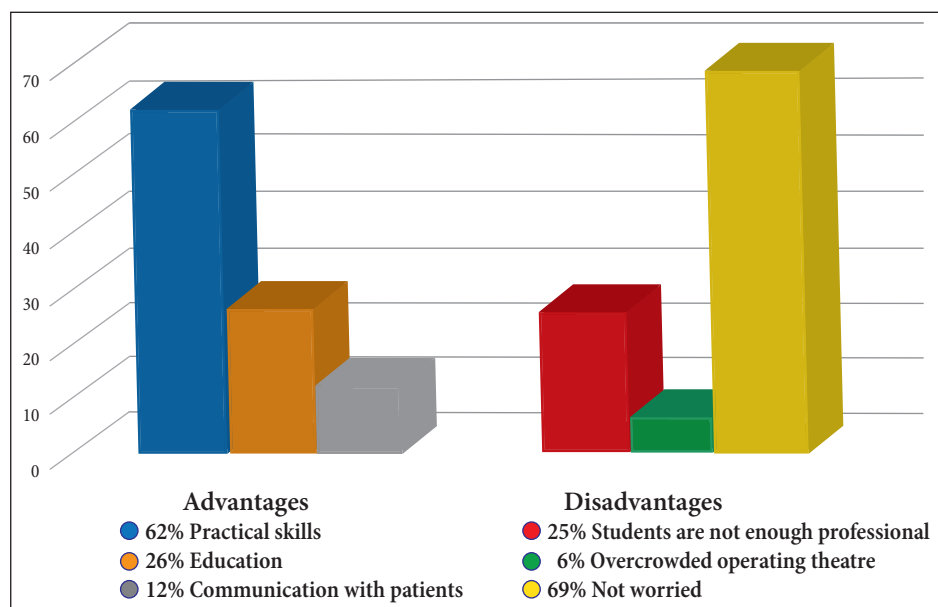


Figure. Advantages and disadvantages of the participation of medical students in surgical operations as reported by patients

additional practical skills, this study also revealed the reasons due to which patients felt uncomfortable with the presence of medical students. These reasons were indeed similar to those reported in the literature and the majority of patients said that students were not professional enough.

Our study also revealed that only 21.3% of the patients were informed about students' involvement for learning purposes. Informing the patient is very important and we need to humanize medical education, because patients are the main educational "tools". The reasons that make the patients feel uncomfortable and unsafe are related to the lack of awareness of the extent of students' involvement.

The results of this survey confirm that most patients recognize the educational benefits of the participation of medical students in their health care and accept their presence.

CONCLUSIONS

Our study confirmed that majority of patients would agree to the involvement of medical students in the induction of anaesthesia during their surgical operations. The patients pointed out that the general reason of their concern over surgery was insufficiently professional students who did not have enough skills. Most of the patients held the view that involving students in their surgical

operations had no negative influence on the quality of surgery.

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CONFLICT OF INTEREST

None declared.

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**PACIENTŲ NUOMONĖ APIE MEDICINOS
STUDENTŲ TRETINIO LYGIO MEDICINOS
ĮSTAIGOSE: AR PAGEIDAUJAMI KLINIKINĘ
PRAKTIKĄ ATLIEKANTYS STUDENTAI?**

Santrauka

Įvadas. Pagrindinė universitetinės ligoninės užduotis – mokyti medicinos studentus. Daugumai pacientų mokymo būdas atliekant praktiką ne visada yra priimtinas. Atliktas tyrimas Saudo Arabijos Jeedah universitetinėje ligoninėje parodė, kad tik 51 % pacientų teigiamai vertina medicinos studentų dalyvavimą jiems atliekamose procedūrose. Tyrimu buvo siekiama įvertinti apklaustų pacientų požiūrį į medicinos studentų dalyvavimą jų sveikatos priežiūroje.

Metodika. Prospektyvinio anoniminio tyrimo metu apklausta 150 pacientų, gydytų Lietuvos sveikatos mokslų universiteto ligoninės „Kauno klinikų“ Chirurgijos skyriuje. Apklausa sudaryta iš 12-os klausimų – pirmi du apie asmeninę pacientų informaciją, o likę – pacientų nuomonė apie medicinos studentus. Tyrimui atlikti ir statistinei informacijai apskaičiuoti naudota IBM SPSS 23.0. Skirtumas laikytas statistiškai reikšmingas, kai $p < 0,05$.

Rezultatai. 78 % pacientų sutiktų, kad medicinos studentai dalyvautų jų operacijoje. 78,7 % apklaustųjų teigia, jog leistų studentams padėti anesteziologui atlikti tam tikras procedūras, susijusias su anestezija. 79 % nurodė, kad medicinos studentai prieš operaciją jiems nebuvo pristatyti, o likę 21,3 % tikina, kad buvo informuoti, jog studentai dalyvaus dėl mokymosi tikslų. Didžioji dalis apklaustųjų (62 %) nurodė, kad, jų nuomone, pagrindinis studentų dalyvavimo operacijose privalumas yra papildomi praktikos įgūdžiai. Nustatytos pagrindinės pacientų nerimo priežastys: 25 % mano, kad studentai dar nėra pakankamai profesionalūs, 6 % jaustųsi nesaugiai dėl perpildytos operacinės, o likę 69 % teigia, jog visiškai dėl to nesijaudintų.

Išvados. Dauguma pacientų sutiktų, kad medicinos studentai dalyvautų jų chirurginėse operacijose ir pagelbėtų medikams, ypač anesteziologams. Pacientų teigimu, pagrindinė nerimo priežastis dėl operacijoje dalyvaujančių medicinos studentų, yra nepakankamas jų profesionalumas ir praktinių įgūdžių stoka. Didžioji dalis pacientų mano, kad medicinos studentų dalyvavimas jų chirurginėse operacijose neturi neigiamos įtakos operacijos kokybei.

Raktažodžiai: medicinos studentai, pacientai, medicininis išsilavinimas, praktiniai įgūdžiai