

Assessment of the quality of the 4th year surgical curriculum at the Pomeranian Medical University in Szczecin for the academic year 2016/2017

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ABSTRACT

Introduction: The objective of this study was assessment of the course, quality and accomplishment of 4th year surgical curriculum in Pomeranian Medical University in Szczecin (in Poland) for the academic year 2016/2017.

Materials and methods: A questionnaire-survey was carried out in a group of 97 Polish students in the 5th year of the Medical Faculty just before the seminar-block of surgery. Main topics of the questionnaire items concerned students' opinion on the expected usefulness of the acquired surgical knowledge for future medical practice, acquired manual skills, classes conducted in the operative theatre and overall organization of classes.

Results: Knowledge from general surgery was scored by students the highest as potentially most useful for future medical practice. Assisting in operations and learning manual skills (mostly inserting stitches on a pig trotter) was considered the most valuable portion of surgical curriculum. These skills were

also believed to be the closest to the meaning of the term "skill/competency-oriented teaching" surgery. Theatre classes were considered valuable only for students assisting in operations, but for most of the passive observers it was a waste of time. Less than a half the students took history and examined patients with common urological and surgical disorders. Most (96%) responders considered an inadequate amount of time assigned for manual skills and ward-round teaching the greatest drawback of the 4th year surgical curriculum.

Conclusions: Outcomes of this study showed the students' expectations in surgery lessons in 4th year of university curriculum and what a grade of its performance was. Awareness of this may have an effect on modification of the curriculum and methods of undergraduate teaching surgery.

Keywords: surgical curriculum; undergraduate medical education; teaching methods; teaching outcome measures.

INTRODUCTION

For the academic year 2016/2017, the surgical curriculum at the Pomeranian Medical University in Szczecin during the last 3 years of study was organized in a "block" setting. Earlier to this date, the surgical schedule in the 4th year lasted one semester and was carried on in "hours". The surgical curriculum comprises teaching general surgery, particular surgical disciplines and urology. In the 4th year, seminars and classes are carried out in 4 departments:

- General and Gastroenterology Surgery (SPSK-2),
- General, Gastroenterology and Mini-invasive Surgery (SPSK-1),
- General, Endocrinology and Plastic Surgery (Police),
- Urology and Uro-oncology (SPSK-2).

The Dean's Group consisting of 30–32 students is divided into 6-person subgroups (Department of Urology and Urooncology is attended by 2 subgroups simultaneously). The classes in each department last 4 days, except for the Urology Clinic which lasts 8 days. In assumption, any of the surgical departments should teach students mainly in general surgery. In practice, each of

the participating departments has been profiled into a particular sub-specialty, thus, the proportion between learning general and specialist surgery has been more or less disturbed, in favour of the latter. The methodology of teaching includes providing theoretical knowledge during seminars (lasting 3 days) followed by 16 days of practical activities (classes). Programs of the classes are not uniformly determined, but, in assumption, it should comprise the following elements:

- ward rounds (taking history from the patients and physical examination of patients supervised by a tutor),
- dressing room activities (changing dressings, performing simple procedures, i.e. removal of stitches, placing plaster splints or casts),
- attending outpatient clinics with a tutor,
- attending operative theatre (learning how to scrub hands, theatre rules and behaviour, observing and assisting in operations),
- attending emergency department and/or admission room (usually during a duty),
- learning practical skills, i.e. catheterizing urinary bladder, rectal examination, wound suturing on an artificial model.

The way of holding classes is highly dependent on the engagement and enthusiasm of the tutor (an assistant or resident who takes care of the students) and on the chief of the department who is responsible for the whole educative process in that institution. According to the requirements of the syllabus, practice/skill-oriented teaching is more desirable (favoured) than observational/passive setting. The objective of this study was to evaluate the course, quality of teaching and degree of implementation of the surgical curriculum on 4th year of studies at the Pomeranian Medical University in Szczecin (in Poland) for the academic year 2016/2017.

MATERIALS AND METHODS

A questionnaire-survey was carried out in a group of 97 Polish students (3 Dean's groups) attending the 5th year of studies, just before the seminar-block of surgery. The time allocated for this survey was 15 min. No application to the universities' Ethical Committee was made, as in the assumption of the principal investigator, it was not necessary. A custom-made questionnaire dedicated to the assessment of quality of teaching surgery on 4th year was designed by Andrzej Żyluk. The questions/items were proposed by faculty members at the authors' institution who are involved in teaching surgery 4th–6+ years of studies. The proposed questions were discussed, analysed, modified and then either approved or rejected; the final version consisted of 12 closed items (see Appendix). The main topics of the questionnaire items concerned students' opinions of the course, quality and organization of surgical classes in the 4th year of studies in the context of expected usefulness of the acquired surgical knowledge for future medical practice, acquired manual skills and overall organization of classes. Three items asked for experiences from the operative theatre. The results of this survey constituted the basis for preparing this article.

RESULTS

The 1st item of the questionnaire concerned students' opinion on the usefulness of knowledge from particular surgical specialisations for their future practice. Students believed that the most useful for daily practice would be knowledge acquired from general surgery (66%), followed by urology (20%) and endocrinology/plastic surgery (14%).

The next item concerned the type of activities in which students participated during the 4th year surgical curriculum. All students attended operative theatre and $\frac{2}{3}$ assisted the operations. Eighty-two percent participated in seminars and 75% attended outpatient clinics with their tutor. Only 57% of students practiced ward rounds: examinations of patients supervised by a tutor followed by discussions of the findings. Half of the students had organized lessons in wound suturing using a pig trotter.

The most useful method of holding classes, that is to say, thanks to which the students acquired the most knowledge and/or skills, was assisting in operations, rated the best by 58%, followed by manual exercises, i.e. wound suturing using a pig trotter – by 51% of students. Less than a quarter (22%) of the answers indicated ward rounds as the most effective and 17% attending outpatient clinics. The lowest rated activities for acquiring knowledge and skills were observing the operations (14%) and attending seminars (12%) – Figure 1.

The next question concerned manual activities practiced by students during learning surgery in the 4th year. Answers to this question are shown in Figure 2.

Which of the below-listed method of holding classes you consider the most useful, that is to say, thanks to which you acquired the most of knowledge and/or skills?

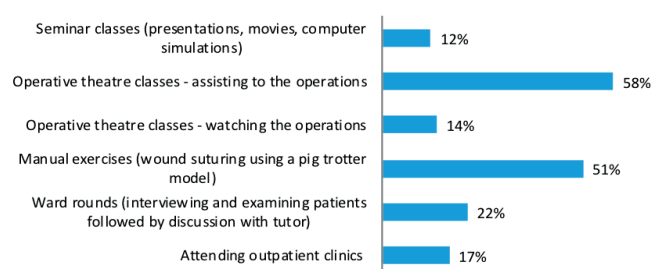


FIGURE 1. Rating of the methods of teaching surgery in the 4th year in the context of their effectiveness in acquiring knowledge and/or skills

Which of the below-listed activities you attended or performed during surgical classes at 4th year?

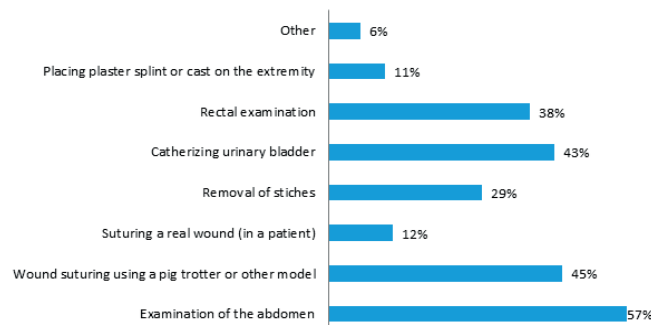


FIGURE 2. Manual skills practised by students during learning surgery at 4th year

The next 3 items were directed towards the operative theatre experience. For most students the 1st contact with the operative room was held in the 4th year of studies. It seems obvious that students should be instructed and informed about theatre-specific behaviour rules: wearing operative uniforms, caps and masks, preparing to assist in the operation, hand scrubbing, keeping adequate distance from the operative table, aseptic behaviour and others. Results of this survey show that almost $\frac{1}{3}$ (31%) of students were not instructed prior to entering operative theatre.

Another question was linked with the former and concerned unpleasant experiences associated with attending the operative

room. Almost half of the students (48%) experienced stressful and unpleasant episodes, of which a number (28%) considered it a result of a lack of adequate instructions (unintentional) and 20% recognized it as a result of their own error. Almost half of the students felt unpleasant fear during assisting operations, about doing something wrong (a blunder) and about intimidation by surgeons. Just above half (52%) declared only positive theatre experiences. The 3rd question in this series concerned the students' expectations with attending theatre. The vast majority (82%) thought that they would learn some manual skills: scrubbing hands, tying surgical knots or suturing wounds. Almost $\frac{2}{3}$ (66%) expected that participating at the operation would be experience of the final stage of a diagnostic process i.e. in the emergency department. Surprisingly, only 32% of students scored positive classes held in the operative theatre in their didactic aspect; $\frac{2}{3}$ believed that they were not useful and postulated their reduction. For 9% they were attractive but with no practical value.

The next item asked about understanding of the term "skill/competency-oriented teaching" of surgery. The vast majority of respondents (88%) considered learning and practicing manual skills such as suturing, removal of stitches or catheterisation to be the closest meaning of this term. For slightly more than a half (55%) it was associated with training on surgical simulators and dummies. For less than a half (46%) it meant ward-round circulation with mentor assistance and examination of the patients with common surgical diseases such as acute appendicitis, hernias or digestive tract malignancies. The same proportion of learners believed that this term had meant acquiring surgical skills at assisting operations.

The next question concerned the standards of organization of the classes in particular departments. Due to the sensitivity of this data for particular persons (i.e. chiefs of the departments), the names of the units were coded. There were substantial differences in students' evaluation of organization of teaching (Fig. 3). Almost $\frac{2}{3}$ of learners rated the highest classes held in department 1 and only a few (5%) in department 3. For regularity, it should be mentioned that the result of such expressed items does not automatically mean that the organization and course of classes in the department 3 were bad.

In which of the below-listed departments organization of the classes was the best?

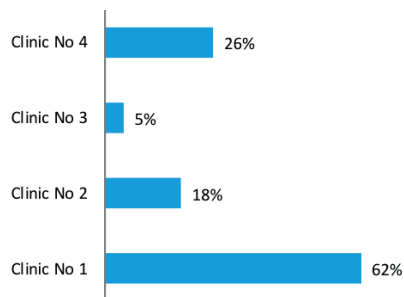


FIGURE 3. An evaluation of standard of organization of classes in particular departments

In next point of the survey the students were asked for the principal shortcoming of the 4th year surgical curriculum. The vast majority of respondents (96%) indicated too little contribution of practical activities during the classes (learning manual skills, ward rounds), and more than half pointed at ineffective utilization of the time allocated for teaching. For 19% of respondents the main fault was associated with unsatisfactory engagement with and/or poor professional preparation of supervising tutors (Fig. 4).

The next question asked about the availability of seeing patients suffering from common surgical and urological diseases during their curriculum. The answers to this question are shown in Figure 5.

Which - in your mind - was the principal shortcoming of the 4th year surgical curriculum?

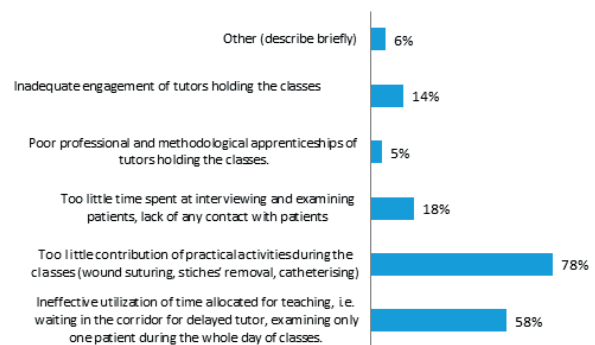


FIGURE 4. Principal shortcoming of the 4th year surgical curriculum noticed by students

During the 4th year classes have you seen or examined any patient with the below listed surgical diseases (mark if so)?

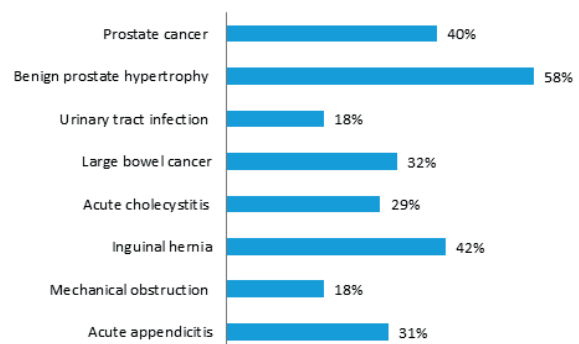


FIGURE 5. Spectrum of diseases to be seen by students during 4th year surgical curriculum

The last item concerned a comparison of standards of organization of surgical versus others, i.e. internal medicine curriculum. A half of the respondents stated that surgery teaching standards had been comparable with those seen in other departments, 33% considered the surgical curriculum as less organized and 17% scored it highly. Over and above, students spontaneously

added their remarks on the questionnaires concerning particular questions. Some of them are presented below:

- attending the operative theatre and assisting operations were rarely possible due to too numerous i.e. 6-person groups in the operative room. Watching surgical procedures from behind the operating surgeon's back ("shadowing") was a waste of time. Only an assisting person derives some benefit from attending theatre,
- the technique of scrubbing hands to operation was never taught but this skill was required of me,
- it was a stressful experience, because nobody showed me how to prepare for the operation,
- students who do not assist in the operation stay (crowd) in the room aimlessly,
- the assistant avoids students, coming late to the seminars, hours of standing in the corridor waiting for the tutor,
- we did not examine any patient during classes!
- learning practical skills insufficient! Though we will work in emergency units and in general practice!

DISCUSSION

Information obtained in this survey allowed recognition of the students opinion about standards of organization and the course of the surgical curriculum of the 4th year of medical studies (1st year of learning surgery). The 1st question concerned students' opinion on the usefulness of knowledge from particular surgical sub-specialisations for their future practice. The results show that most of students believe general surgical knowledge will be more useful in their future medical practice than narrow-specialistic. This outcome is consistent with that obtained in our earlier study investigating the graduates opinion about the usefulness of surgical knowledge and skills in their daily practice [1]. Regardless of the future specialty chosen by the graduate, a basic general surgical knowledge is considered a valuable component of medical education.

The next analysed question was an evaluation of particular methods of teaching in light of their effectiveness in acquiring useful knowledge and skills. Assisting in operations and learning manual skills were scored the highest. Almost $\frac{2}{3}$ of students declared participation in operations, of which 58% considered it valuable experience. Most students enjoyed assisting in operations, as it introduces them to a new, unknown and a bit mysterious world. However watching surgical procedures from behind the operating surgeon's back ("shadowing") is useless for the majority of students. This results from limited availability to have clear view of the operative field by 6 students simultaneously (laparoscopic operations offer greater possibilities in this field). Also, most surgeons do not understand that a simple view of the bowel in the open abdomen does not increase individual student's surgical knowledge or skills and that teaching students' surgery does not mean teaching them how to operate. Therefore, as it has already been mentioned, the real value of theatre experience for general

medical education is doubtful. This view is supported by the results of our survey (particularly the written remarks at questionnaire forms) and by data from literature [2, 3, 4, 5, 6]. This teaching method is – unfortunately – fairly common, due to the necessity of assisting in elective operations by young trainees who – simultaneously – are engaged in teaching students. The authors do not suggest cancelling theatre classes at all; it would however be desirable to improve the organization and effectiveness.

The relatively high estimation of manual skills (i.e. wound suturing in a pig trotter) arises from a natural fascination associated with learning simple surgical procedures. Even in later years, practising these skills attracts the students and gives them satisfaction [1, 2]. Surprisingly, the classes held at the patients' bedside (ward rounds) and in the specialistic outpatient clinics were lower rated. Teaching theory at the seminars was the poorest estimated. Considering that 75% and 57% students (respectively) attended outpatient clinics and participated at ward rounds, and less than 50% learned manual skills, a general organization and accomplishment surgical curriculum in the 4th year met only in part the students' expectations. These data are not consistent with the results of our earlier study. The inquiry performed among doctors, several years after graduation and being in the course of various specialties showed that most of the valuable knowledge and skills had been acquired at ward rounds and in outpatient clinics [2]. Similar findings were reported by other authors [7, 8, 9, 10, 11, 12].

Relatively poor estimations of seminars as a method of acquiring knowledge has been shown in our earlier investigations and in literature [1, 2, 13]. It is oddly enough, as seminars constitute a constant element of the teaching program in almost all clinical subjects and their importance as yet was not questioned. However, the results of our survey show with no doubt that this method of teaching did not attract the students' attention and was considered of little value. One possible explanation of this result may be the poor quality of the seminars: they were not adequately prepared, providing old (not updated) information, repeating data from textbooks or simply not interestingly presented. Regardless of the real cause of this criticism, the results of our investigations indicate the necessity of deeper analysis of this alarming phenomenon.

The range of manual skills to be exercised by students during their 4th year surgical curriculum looks relatively good (Fig. 2). Almost half practiced putting stitches in a pig trotter and catheterised a urinary bladder; more than $\frac{1}{3}$ performed rectal examination and slightly less than $\frac{1}{3}$ removed stitches from a wound. Obviously disappointing is only the result concerning examination of the abdomen, performed by slightly more than a half of students, during their 21-days of classes. The abdominal examination belongs to the basic skills in medical education, regardless of the specialty, and should be practiced by students as frequently as possible, preferably every day.

Answers to a series of 3 items focused on operative theatre experience revealed a problem of inadequate preparation of students prior to entering theatre, which resulted in stressful and

unpleasant situations for 28% of them. It seems obvious that entering such a specific field, having strictly defined behaviour rules and discipline must be preceded with adequate instructive training. As it is shown in our study, it was not obvious for a proportion of teachers. Both tutors and chiefs of departments bear responsibility for these drawback and they frequently are even not aware of the obligation to instruct students before assisting operations.

Answers to the next question concerning students' expectations associated with theatre classes, showed that the principal wish of the students was learning to perform typical manual skills: scrubbing hands, tying knots and surgical suturing; $\frac{1}{3}$ expected that watching the operation would be an experience of the final stage of a diagnostic process and interventional solution of the problem leading to recovery. These expectations are natural, however they rarely come true, because in most cases the students are not informed about history of the patient's whose operation they observe; likewise, the chance for active participation in the operative procedure is modest. The results obtained in this survey indicate a direction of teachers' activities to comply with students' pertinent expectations. Data from literature emphasise the didactic value of students' participation in the whole diagnostic and therapeutic process: from the beginning at the emergency/admission room, through the therapeutic process (i.e. operation) to the final outcome – release of the recovered patient's home [4, 5]. The latter element is also easy to meet: in the author's institution, the students assisting in operations are actively engaged in their course: they clean (dry) the operative field, coagulate bleeding vessels with diathermy, cut ends of stitches and – not uncommonly – close operative wounds. And, obviously, they hold the retractors in the meanwhile.

The next question concerned understanding of the term "skill/competency-oriented teaching" surgery. The majority of respondents (88%) considered learning and practicing manual skills, such as suturing, removal of stitches or catheterisation to be the closest meaning of this term. For slightly more than a half (55%) it was associated with training on surgical simulators and dummies. For less than a half (46%) it meant ward-round circulation with mentor assistance and examination of patients with common surgical diseases such as acute appendicitis, hernias or digestive tract malignancies. The same proportion of students believed that this term had meant acquiring surgical skills while assisting in operations. Considering the former point (acquiring manual skills), the result is consistent with the answers of the earlier questions and with literature [1, 2, 6]. The relatively modest popularity of learning "virtual" surgery resulted probably from a lack of these experience among the majority of respondents and just their imagination of the real value of this method of teaching. Almost half of the students considered ward rounds followed by a discussion with the tutor to be the closest meaning of the term "skill/competency-oriented" education. Our latest experience from "practical" year (former 6th year of studies) showed one more aspect of this way of teaching, which was engagement of the students in the current work of the department. According

to the traditional model of teaching medicine, students attending the classes are "guests" and "observers", participating only minimally in the real activity of the ward. Each person belonging to the department staff has his duties to perform but the students do not; their principal goal is acquiring knowledge but not carrying out concrete tasks. Such a placement of learner groups in the departmental structure may provoke them to feel unnecessary, alien and unprofessional among busy doctors and nurses. A comparison to the activities of internship doctors and the students show distinct differences:

- Internship doctors do work (are professionals), while students only observe (are amateurs).
- Internship doctors have their duties (are useful), while students have not (are useless).
- Internship doctors know how take care of their time, while students rely on the tutor (when left alone, they occupy desks or are wallflowers).

An introduction of the "practical" year, 6th year of studies resulted in a quite significant change of this model, in favour of students who gained a "nearly-internship doctor" status. They were assigned certain tasks to perform and the ability of taking care of their time, which gave them the chance to acquire many practical skills unavailable during the contemporary practiced, traditional model of teaching. There are many indications that this is an appropriate way to "skill/competency-oriented teaching" which is possible to apply in classes for students of the 4th and 5th years [14, 15, 16].

The question about the quality of the classes in particular departments revealed significant differences in ratings: one of the units distinguished itself positively, while another was an outsider (Fig. 3). This finding will be left without comment. Too little contribution of practical activities during the classes were shown as the principal drawbacks of 4th year classes, indicated by as many as 96% of responders (Fig. 4). This issue was demonstrated in answers to earlier questions. More than half of the students pointed at ineffective utilization of time allocated for teaching and 19% questioned professional apprenticeships and engagement of tutors holding the classes. The results obtained in our survey show inadequate, not-meeting assumed didactic goals and students expected proportion of time devoted to learning practical surgical skills (see previous paragraph). This problem was mentioned in literature in the context of new regulations of doctors' working hours, principally directed towards preventing overload. This, however, was associated with a limited ability to teach students, i.e. in the day following a duty. In 2 articles, the authors evaluated a modified (by necessity) teaching program, consisting of greater student engagement in current daily ward activities, assigning them certain tasks to perform, with the engagement of internship doctors and residents in the process of teaching [14, 15]. These modifications showed to be effective, resulting in greater student satisfaction, regardless of any reduced availability of regular tutors.

Responses to the questions about clinical experience acquired by students in diagnosing typical surgical and urological diseases show moderately satisfactory results (Fig. 5). More than a half of responders saw or examined patients suffering from benign prostatic hypertrophy. A relatively overrepresentation of urologic disorders on this list results from double longer time spent by students in the urooncologic department and from greater availability of these patients in this unit. Although only $\frac{1}{3}$ of students saw patients suffering from large bowel cancer and common acute surgical diseases, this result – in the authors mind – is fairly good. In the perspective of the usefulness of the acquired knowledge and skills in future medical practice, the students who interviewed and examined patients suffering from common surgical diseases benefitted more than those who only watched sophisticated diagnostic or therapeutic procedures. This finding was confirmed by the results of our earlier studies [1, 2].

The last item of the questionnaire, about comparing teaching standards for surgery in the 4th year of studies with other clinical subjects (mainly internal medicine) showed that they were comparable for half of responders. Almost $\frac{1}{3}$ rated surgical classes poorer, which is not surprising and – in the authors mind – is caused principally by substantial (over-) contribution of theatre classes in the curriculum, in which the learners are only passive observers of procedures, considered by them a loss of time.

The questionnaire used in this survey was a custom-made not standardized instrument, although its structure was similar to one already used in our earlier investigations [1, 2]. The authors were unable to find in literature any other suitable standardized instrument to measure the quality of undergraduate surgery lessons. They believe that the questionnaires produced by them and already used in 3 studies meet the requirements of scientific tools to achieve the goals of these studies and may undergo a process of standardization. The results obtained in this survey help to establish an opinion about the course, the quality of teaching and the degree of implementation of the surgical curriculum in the 4th year of studies at the Pomeranian Medical University in Szczecin. We believe that they will be useful for individual tutors, chiefs of departments

responsible for teaching, organizers of teaching at other clinical subjects and for authorities of the university. Some findings revealed in this study need to undergo deeper analysis to enable modification of the structure, the content of the 4th year surgical curriculum and methodology of teaching surgery.

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A questionnaire dedicated to the assessment of the quality of teaching surgery in the 4th year of studies:

1. Which of the below-listed particular surgical sub-specialisations learned in the 4th year will be – in your opinion – the most useful in your future practice (mark only one)?
 - a) general surgery
 - b) urology
 - c) endocrinology and plastic surgery.
2. Which of the below-listed activities have you attended or performed during surgical classes in the 4th year?
 - a) attending outpatient clinics
 - b) ward rounds (interviewing and examining patients followed by discussion with the tutor)
 - c) manual exercises (wound suturing on a pig trotter)
 - d) operative theatre classes – assisting the operations
 - e) operative theatre classes – watching the operations
 - f) seminar classes (presentations, movies, computer simulations).
3. Which of the below-listed methods of holding classes do you consider most useful, that is to say, thanks to which you acquired the most knowledge and/or skills (mark maximum two)?
 - a) attending outpatient clinics
 - b) ward rounds (interviewing and examining patients followed by discussion with the tutor)
 - c) manual exercises (wound suturing on a pig trotter)
 - d) operative theatre classes – assisting the operations
 - e) operative theatre classes – watching the operations
 - f) seminar classes (presentations, movies, computer simulations).
4. Which of the below-listed manual tasks did you perform during 4th year classes?
 - a) wound suturing using a pig trotter, or other model
 - b) suturing a real wound (in a patient)
 - c) removal of stiches
 - d) catheterizing a urinary bladder
 - e) rectal examination
 - f) examination of the abdomen
 - g) placing plaster splint or cast on a limb.
5. Were you instructed and informed about operative theatre-specific behaviour rules, prior to entering the theatre?
 - a) yes
 - b) no.
6. During operative theatre classes, did you experience any unpleasant or stressful situations caused by your inadequate behaviour in the operative room?
 - a) yes, and it might have been avoided if I had been better instructed about theatre-specific behaviour rules
 - b) yes, but it resulted from my own unintentional error
 - c) no, everything was perfect!
7. Which are your particular expectations associated with attending operative theatre?
 - a) watching or assisting operation as experience of the final step of a diagnostic-therapeutic process
 - b) learning some manual skills: scrubbing hands, tying surgical knots or suturing wounds
 - c) spending interesting time but with no practical or educational value
 - d) theatre classes are the least useful method of utilization of time dedicated to learning surgery.
8. How do you understand the term “skill/competency-oriented teaching” surgery?
 - a) ward-round circulation with mentor assistance and examination of patients with common surgical diseases such as acute appendicitis, hernias or digestive tract malignancies. Acquiring knowledge and skills that would be useful in your future practice, regardless the specialty you choose
 - b) learning manual skills (wound suturing, stitch removal, catheterising, introduction vein-lines)
 - c) acquiring surgical skills while assisting in operations
 - d) training on surgical simulators and dummies.
9. In which of the below-listed departments was organization of the classes best?
 - a) Urology and Uro-oncology (SPSK–2)
 - b) General and Gastroenterology Surgery (SPSK–2)
 - c) General, Gastroenterology and Mini-invasive Surgery (SPSK–1)
 - d) General, Endocrinology and Plastic Surgery (Police).
10. Which – in your mind – was the principal shortcoming of the 4th year surgical curriculum?
 - a) ineffective utilization of time allocated for teaching, i.e. waiting in the corridor for delayed tutor, examining only one patient during the whole day of classes
 - b) too little contribution of practical activities during the classes (wound suturing, stitch removal, catheterising)
 - c) too little time spent interviewing and examining patients, lack of any contact with patients
 - d) poor professional and methodological apprenticeships of tutors holding the classes
 - e) inadequate engagement with tutors holding the classes
 - f) other (describe briefly).
11. During the 4th year classes did you see or examine any patient with the below listed surgical diseases (mark if so)?
 - a) acute appendicitis
 - b) mechanical obstruction
 - c) inguinal hernia
 - d) acute cholecystitis
 - e) large bowel cancer
 - f) urinary tract infection
 - g) benign prostate hypertrophy
 - h) prostate cancer.
12. Comparing to classes held in other departments, i.e. internal medicine, how do you consider the organization of surgical training?
 - a) better organized and more interesting
 - b) organization and level of teaching is comparable with other subjects
 - c) worse organized and less interesting.