

Opinion Paper

Brigitta M. Lutz*, Benedikt J. Braun, Beate Blank and Manuel Mutschler

Why bother: usefulness and effect of young surgeon committees in surgical societies

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Abstract: Work-time constraints during surgical residency along with managing a private life usually take up the majority of the time of young surgeons. For many, work with a surgical society seems like something neither generally promising nor personally worthwhile, thus raising the question, why bother? This article sets out to show examples of the effects that surgical societies and young surgeon committees can have on surgery and residency training. Additionally, we highlight the personal side of being active on a committee. Our aim is to raise interest in participating in societal work by showing the rewarding general effects as well as personal benefits. While this article is based primarily on experiences made in Germany, we believe that aspects can be transferred to other medical systems.

Keywords: societal participation; surgeons in training; surgical society; surgical training; young surgeons board.

Introduction

Usually, work as a trainee in a surgical unit consumes the majority of the time of surgical residents. Between managing the acquisition of technical skills and required knowledge, the commitment in research or teaching, and private life, the remaining time is sparse. More surgical residents start raising children during their training [1], and the time for and interest in research is dropping [2],

while workload and relative discontent with the working situation remains high [3]. Further, the active members of surgical societies are frequently university professors or other heads of surgical departments, hence raising the question, why should a trainee bother to be part of a surgical society?

When starting out as a young surgical resident, many changes come to the life we used to know as students, bringing up new challenges, issues, and questions. Naturally, the main goal of a surgical resident is to be well trained and educated in a manageable period of time. Yet, at the same time, most would agree that there should also be an equal part for the other things in life, such as family, hobbies, teaching, and research, just to name a few. Even without societal work, this equals a full schedule for most surgical residents. The challenge is to become a skilled surgeon and a scientist while getting one's exercise, meeting friends, traveling, and having an active family life. This is commonly referred to as work-life balance or blending – highly individual, yet concerning everyone [4].

One of the most pressing concerns during residency training is starting a family. Depending on the subspecialty chosen, >60% of residents start a family during their training [1], and this is a major issue even for younger medical students [3]. Due to societal and demographic changes, most parents like to take an increasingly larger and active part in raising their children. As a result, both male and female surgeons take some time off the job to care for their kids. This break seems to compete with quick and efficient training in surgery. Additionally, in Germany, the majority of medical school graduates are women at present, resulting in an increase in the number of female surgeons as well. Female surgeons might take several breaks during pregnancy and parenting, or return to the job as part-time employees. Solutions exist locally [5], but on the national level, this remains a challenge.

These circumstances together with advancing surgical techniques result in changing conditions in surgery itself and, therefore, also in surgical training. We have to think outside the box in order to bring together the needs and advantages of both the surgical field and the

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trainees. Surgical training has to become more flexible and at the same time cover extensive knowledge and skills.

To positively contribute to these changes on a general level and on the societal level is one of the main issues for young surgical committees. It concerns all of us and should therefore be of interest to the majority of surgeons. Yet, because of many reasons, participation in these committees is depressingly low. The aim of this article is to show some of the effects of such work on both the general and personal levels, to potentially encourage the future generation of surgeons to actively participate in shaping our surgical future. Although this article is based primarily on experiences made in Germany, we believe that aspects can be transferred to other medical systems.

Tasks of surgical societies and their young professional committees

Promote surgery to young professionals

One of the major tasks of surgical societies is to ensure the future of the surgical profession through the acquisition of fitting young professionals in a sufficiently large number. Shortages of well-trained surgeons will eventually also diminish the impact of surgery among the other medical fields. Surgical disciplines have to deal with a decreasing number of candidates for surgical training [6]. On the one hand, the times when applications piled

up high on the desks of professors and heads of departments are very much over. On the other hand, this offers a seemingly comfortable situation in the job market for newcomers. The question that is raised nowadays is not “will I find a job?” anymore, but rather “where do I like to work?” or “how do I like to spend my working hours?” – questions to which surgery does not always have the best answers. Furthermore it seems like we are shying students away the more they are exposed to our daily surgical life in internships. Soft influencing factors through positive role models and mentoring in surgery are among the most important elements to motivate students to follow surgical careers, and surgical residents to subspecialize [7, 8]. It seems like these actions are ones that can only be taken on a local or personal level. Yet, there are many problems that should and can be addressed by surgical societies. Surgical societies offer plenty of room for personal interactions not only through their annual meetings but also through local events that are targeted to both students and young professionals. Special programs for students in surgical expert conferences and several recruiting and teaching campaigns of the Professional Association of German Surgeons [9, 10] are excellent examples of events that directly influence and positively motivate students to pursue a surgical career (see Table 1). This direct contact with young, interested students is one of the key motivators to not only pursue a surgical career but also to become involved in young surgeon committees.

Apart from the personal level, the major points of complaints among surgical trainees should become the key focus areas of surgical societies to increase the attractiveness of surgery. Among these complaints is the lack of

Table 1: Support programs in Germany for students or young surgeons.

Kongress der Deutschen Gesellschaft für Chirurgie

This is the annual meeting of the German Surgical Society. With over 4000 visitors, it represents research from all aspects and subspecialties of surgery. Each year, >50 students are invited to visit the meeting for free, with travel and lodging costs provided by the surgical societies and sponsors. A special program addressed to students consisting of informational talks and a skills laboratory is provided.

Nur Mut: ChirurgIn werden

“Nur Mut” is a campaign of the Professional Association of German Surgeons aimed at introducing students to surgery. They offer practical courses and meetings all over Germany, provide help with job applications, and run a successful website providing free additional information on topics such as career and family.

Staatsexamen und Karriere

This is a student course jointly run by the Professional Association of German Surgeons and the German Society of Internal Medicine. They provide comprehensive repetition courses and practical courses for students preparing for their final medical examinations.

Operieren in der Schwangerschaft (OPIDS)

OPIDS is an initiative of young female surgeons to check which kinds of surgery could be performed by pregnant women. OPIDS offers information on practical and legal questions for those who like to continue working in the operation theater while pregnant.

structured training programs and, with that, the absence of a projectable career. Furthermore, with the rising desire for a balanced work and private life, surgery faces a natural loss in popularity owing to the expected extensive working hours [11]. The quality and attractiveness of surgical training can be enhanced by a structured curriculum, a frequent dialogue between trainee and supervisor, a sufficient and comparable log book, indication meetings, planned rotations, internal and external training options, feedback, train-the-trainer concepts, and mentoring [11]. Surgical societies can create and submit template curricula together with recommendations for rotations and external trainings. Also, they are involved in forming recommendations for specific subspecialty trainings, which are otherwise left to the federal chambers of physicians. Through internal surveys and studies, they can benchmark external training offers and organize training units in a structured fashion. Training recommendations and programs can then be customized to the local curriculum, so that it matches the local conditions. Surgical societies can help supervisors achieve these goals with guidelines and train-the-trainer workshops.

The German authorities have established a new training program for all medical fields. This is an important chance to shape the standards so that they fit the needs and expectations of both the trainees and the supervisors. It is crucial to again increase the attraction of surgery as a medical profession, especially among those whose assets and interests would suit surgery very well. Otherwise, we will lose these gifted and motivated young professionals either to other medical disciplines or even to areas outside of medicine. As young surgeons, we are in the same generation as the potential new candidates for the field of surgery. We share their needs and worries. Therefore, we are the perfect partners to identify and erase potential pitfalls and obstacles toward a surgical career.

Support female surgeons in their professional advancement

Another factor that reduces applicants for surgery is the gender aspect. Many potential female candidates are unsure whether surgery is compatible with an active family life. Those medical students who have a strong wish for a family life are less likely to choose a career in surgery [12]. A surgical society should create a framework and offer support in order to make surgical training possible for those women who consider both a career in surgery and having a family. In Germany, many pregnant surgeons announce their pregnancy rather late, as a consequence

of very restrictive laws. Some of the restrictions and regulations are very reasonable and important, like the prohibition of working at night and providing adequate time for breaks. It is known that the number of obstetrical complications rises with the number of nights on call and with longer operating hours [13]. However, these laws also prohibit the majority of daily surgical tasks. Pregnant women are usually only allowed to cover administrative tasks, and thus have no training in manual surgical skills. Together with the maternity leave, which is usually taken after birth, this even widens the gap between female and male surgeons in their professional advancement. Even though pregnancy is a special condition, women should not be excluded entirely from the operating theater. Usually, every surgical discipline offers procedures that are short and could be done without volatile anesthetics or the use of fluoroscopy. On the one hand, it is important that pregnant women are protected especially when it comes to working conditions. On the other hand, they should have the chance to continue their surgical training. One major effort to address this topic is OPIDS (see Table 1), a program that offers structured advice on how to manage an active surgical career while being pregnant and can certainly be considered as a great success for surgery all over Germany [14]. This project has been launched by a young surgeon committee.

Aside from pregnancy and parenting, female surgeons sense a certain lack of gender equality in their working environment [15]. While the number of female surgical residents constantly increases, there is still a low number of females in academic surgical departments [16] and a very low number of female full professors in surgery [17]. With surgery becoming more feminine in many countries, surgical societies do not need to encourage their members to employ more female candidates. This is already done on a regular basis. Surgical societies should rather create programs to support female surgeons during their career, with special attention to leading positions and research commitments. Special mentoring programs, especially same-sex mentorship [18], could be very supportive in this context.

Distinction from and cooperation with other fields

Technological progress permits new possibilities in both surgery and in other medical fields. It is the responsibility of surgical societies to share knowledge of new technologies and to train their members in these new skills. Otherwise, we will not remain capable of competing with other

medical fields such as internal medicine or interventional radiology. At the same time, we need to stay in close dialogue with other medical societies, especially for patients who require knowledge and skills from several different medical fields. Eventually, the patient is our customer and every health-care participant has to treat this customer to the best of one's knowledge and belief. As young surgeons, we are particularly interested in learning and mastering new procedures because the surgeon of the future might not use the same skills as the surgeon of today. Furthermore, our generation is interested in working together in harmonious cooperation, a perfect precondition for our interdisciplinary work life.

Have political impact

Surgical societies need to represent their interests also toward political leaders, the medical self-administration, insurance companies, and hospital management. As professionals in the field, they have to provide insights into surgical knowledge to decision makers. Especially when treatment options are new or not well evaluated yet, surgical societies need to offer a reliable assessment, so that payment providers can choose whether treatment costs should be covered and legislators would know whether a certain treatment option is safe for the patients. Political leaders wish to establish a minimum number of cases for the treatment of a certain diagnosis. Surgical societies have to check whether these numbers of cases are achievable and whether they allow nationwide health-care coverage. We cannot watch politicians change the situation just to suit their agenda or populist goals. We have to be a strong partner who claims the profession's interests and those of the patients.

As members of a young surgical committee, our influence is through position papers and statements in local and national media. Furthermore, personal influence can be built through advisory functions on local and national political boards. Yet, with few members, our voices can easily be ignored. With more members, both surgical societies in general and young surgeon committees in particular can certainly acquire more influence. With more influence, we might take a bigger part in creating our own future. A young surgeon should participate in the renewal of surgical training programs and in promotional campaigns for students. Young surgical committees can offer all this while also providing a network platform that can remain throughout a professional career.

The benefits in brief

- Active participation in increasing the attractiveness of surgery, through
 - regulatory work on committees or
 - guidelines and position papers concerning work and surrounding conditions.
 - Placing special focus on women in surgery.
 - Digitalization.
 - Workspace of the future.
- Working with students and increasing their motivation toward a career in surgery, through
 - local and national workshops,
 - student meetings and preparatory courses, and
 - mentoring programs.
- Networking with other surgeons and physicians overall to
 - increase the reach of projects and
 - foster collaborations.

The personal side

In addition to the overall benefits of societal work, the aim of this article is to introduce personal statements to the reader. We would like to present why some of our members chose to work for a surgical society in addition to having a full work schedule.

Beate Blank

Many of my colleagues have yet to understand the reasons for me investing my personal time into the membership of a young surgeon board. For me, it means trying to change some basic conditions and behaviors that are so deeply rooted in surgery itself, people do not even question them anymore.

I got involved simply because I love surgery. I wanted to become a doctor since I was 3 years old and wrote out prescriptions to my kindergarten classmates. As I grew older and learned more about the human body, I got fascinated with the human body rather than being disgusted by intestines and body fluids, and when I ultimately learned what surgeons do, it turned me into a 15-year-old with the same ambitions that I have today.

Why being involved is actually important to me is a different story. I met amazing young women in my first year of medical school who were thriving for the same goal as I was; however, as the years went by and we learned about

the true meaning of becoming a surgeon, when it was time to graduate I was the only one left who did not want to let go of that dream. Gender aside, in my final year, we were only a handful of people in my class who were still interested in pursuing a career in surgery. For me, there has never been an alternative to surgery, and until today it frustrates me to see that there are people who give up surgery despite their interests, even passions, simply because of general conditions and negative experiences.

I have heard every reason not to become a surgeon, of course also because I am a young woman. With their rules of behavior and their expectations toward themselves, our predecessors have built up walls to accentuate themselves from other doctors. This has long become obsolete in today's context and need to be broken down if surgery does not want to seem so repulsive to medical students. Smaller aspects including lunch breaks, working hours, and intercollegial communication but also more complicated matters like fair and structured teaching plans, employment law, maternity leaves and childcare, or the general perception of surgery can be changed. They will have to be changed, in order for surgery to survive and be an attractive career for young doctors, by people who will be around to witness the aftereffects.

I am involved for the same reason I am a surgeon. I am passionate about seeing the changes and improvements of my own work.

Benedikt Braun

What made me get involved with a young surgeon committee? Honestly, chance and a perceived opportunity to improve my surgical career. Not the noblest of reasons, but the truth. However, that is not what got me to stay. As a student and also a young resident, I never quite understood what it meant to be involved in a surgical society and specifically in a young surgeon committee. You mostly saw the same faces at the conferences and figured they must be careerists for their own good. Once you have worked with these committees, however, the whole perspective changes. All of the surgeons involved I have gotten to meet to this point are out to improve the little and the large things that can be changed about our work situation. They invest large amounts of their free time and energy to change the way we all work for the better. For me, personally, it is on the one hand the chance to directly interact with interested students and young surgeons from all over Germany through workshops and special initiatives for students and represent the true spirit of surgery apart from the surrounding conditions that are limiting our profession today. On the other hand, it

is the opportunity to actually change the conditions of our work environment through raising awareness with surveys and position statements, as well as directly influencing the future course of our residency training. Lastly, it is the interaction with the people involved, all passionate about surgery and easy to be around with. These people make it worthwhile to invest free time and energy.

During my time working on a young surgeon committee, we have already made it possible for students to participate for free in the German Surgical Society. We implemented changes to student courses, increasing their attractiveness and effect on young surgeons and are in the process of combining the efforts of different young surgeon committees, developing new study material for students and an online mentoring program.

Brigitta Lutz

When I did my practical year, I almost lost track of surgery. There were some surgical professors who humiliated their employees. Maybe they had the impression that this would make them work harder. For us as students, it had the reverse effect. No one ever thought of applying in those departments. Fortunately, I also met some very great surgeons who served as good role models. They gave me positive feedback and the impression that a nice working environment in surgery does exist. That made me stay with the decision to become a surgeon. So when I started working, I decided to pass on this positive feedback to the students I taught. Then, a friend recommended me to become part of a young surgeon committee. The idea of a fruitful dialogue and interaction with other surgeons of my age excited me from the beginning. Our meetings served as a good forum to discuss many different subjects, from daily obstacles to a general preparation of one's career. For 4 years, I supported the young surgeon board of the German Society of Vascular Surgery and Medicine as a representative speaker. I had the opportunity to take part in shaping sessions of scientific meetings and to discuss the role of young surgeons in our community. We introduced the participation of one young surgeon as third chair in every scientific session as an integral part of the annual scientific meeting. Last but not least, I got to know a couple of really nice people I am always happy to meet again.

Manuel Mutschler

I became involved in a young surgeon committee of our society for orthopedics and traumatology (Junges Forum

O&U) during university, namely by two young and motivated doctors who inspired me to be part of this community. After finishing medical school, I got quickly involved in the organization of different programs trying to motivate other students to become a trauma and orthopedic surgeon. We were able to present the whole variety of our profession, theoretically and practically.

During my own training, I recognized that there are several demanding topics coming up with our generation, which needed to be addressed. A good medical education in times of increasing work-time restrictions as well as the wish of combining a surgical career and family make new concepts and ideas necessary, which can only be developed by the young generation. Luckily, our society is open-minded and asks actively for the opinion of young, upcoming surgeons. Thus, we were able to organize workshops on topics like how to combine family and career in the future as well as how your training should be organized in the future. Taken together, on the one hand, one has to invest a lot of time and energy, but on the other hand, it is inspiring and worthwhile being part of a group of young surgeons who want to improve training and working conditions for the next generation of residents and fellows. Last, one has the chance also to be part of the steering committee of our society, which allows a deep insight and personal contacts to leading representatives of our society.

Limitations

Obviously, an opinion article such as this has limitations, especially concerning the available literature. Some of the effects of the programs mentioned have not been extensively studied, and their outcome evaluation is at times based on brief surveys and personal experience. However, we feel that they are worth reporting, as change in certain aspects is needed and might come too slowly if only level 1 evidence is used to trigger change. Furthermore, the situations and institutions described in this article are focused on Germany, as this is the home medical system for all authors and the young surgeon committees involved in this project. Differences between systems will certainly limit the transferability of the results. Nonetheless, we feel that this article and the concepts and motivations can serve as an example for other medical systems.

Conclusion

If you think about surgery just as a job to cover your personal expenses, you might not be interested in societal

work and the chances are high that you have not been reading to this point. There is no denying that work on a surgical society is time consuming. It is unpaid, done mostly during free time, and requires personal effort that goes beyond the occasional meeting. However, from a general as well as personal point of view, the benefits are undeniable.

We hope that this article has raised your interest in contributing to societal work and especially young surgical committees, through active participation or just by visiting one of our many sessions at the next annual meeting. If you are a senior surgeon, spread the word, lead by example, and get your residents interested in actively changing our surgical community.

We are looking forward to seeing many new faces at one of our next sessions.

Author Statement

Research funding: Authors state no funding involved. Conflict of interest: Authors state no conflict of interest. Material and Methods: No individuals were included in this study. Ethical approval: The research related to human use has been complied with all the relevant national regulations, institutional policies and in accordance the tenets of the Helsinki Declaration, and has been approved by the authors' institutional review board or equivalent committee.

Author Contributions

Brigitta Marianne Lutz: Conceptualization; Writing – original draft; Writing – review & editing; Benedikt J Braun: Conceptualization; Writing – original draft; Writing – review & editing; Beate Blank: Writing – original draft; Manuel Mutschler: Conceptualization; Writing – original draft.

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Supplementary Material: The article (<https://doi.org/10.1515/iss-2018-0034>) offers reviewer assessments as supplementary material.

Reviewer Assessment

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Reviewers' Comments to Original Submission

Reviewer 1: anonymous

Oct 28, 2018

Reviewer Recommendation Term:	Revise with Major Modifications
Overall Reviewer Manuscript Rating:	30
Custom Review Questions	Response
Is the subject area appropriate for you?	5 - High/Yes
Does the title clearly reflect the paper's content?	4
Does the abstract clearly reflect the paper's content?	3
Do the keywords clearly reflect the paper's content?	4
Does the introduction present the problem clearly?	4
Are the results/conclusions justified?	4
How comprehensive and up-to-date is the subject matter presented?	3
How adequate is the data presentation?	N/A
Are units and terminology used correctly?	N/A
Is the number of cases adequate?	N/A
Are the experimental methods/clinical studies adequate?	N/A
Is the length appropriate in relation to the content?	4
Does the reader get new insights from the article?	1 - Low/No
Please rate the practical significance.	2
Please rate the accuracy of methods.	N/A
Please rate the statistical evaluation and quality control.	N/A
Please rate the appropriateness of the figures and tables.	N/A
Please rate the appropriateness of the references.	4
Please evaluate the writing style and use of language.	1 - Low/No
Please judge the overall scientific quality of the manuscript.	2
Are you willing to review the revision of this manuscript?	Yes

Comments to Authors:

This manuscript deals with important problems of German Surgeons. Nevertheless, there are major concerns. First, the author wants to publish in an international journal and their paper might be read by surgeons/doctors of different countries. The situation described and problems addressed in this paper are specific for Germany. This issue needs to be clarified.

Second, the English is not adequate (multiple syntax/grammar mistakes, unusual verbalisations) and needs to be revised by a native speaker. For example:

Student days at congresses such as the “Deutsche Chirurgen Kongress” but also events like “Nur Mut - ChirurgIn werden” [9] and “Staatsexamen und Karriere” [10] by the German Berufsverband are excellent examples

> An international readership needs translations and adequate explanations regarding the institutions

If surgery is simply a means to provide food and money for you and your family, this article and work on a society is not for you and you'll probably not get to this point in reading anyways.

> I get the point but the sentence is difficult to understand and consists of multiple linguistic mistakes

Reviewer 2: anonymous

Oct 31, 2018

Reviewer Recommendation Term:	Revise with Major Modifications
Overall Reviewer Manuscript Rating:	33

Custom Review Questions

Is the subject area appropriate for you?
 Does the title clearly reflect the paper's content?
 Does the abstract clearly reflect the paper's content?
 Do the keywords clearly reflect the paper's content?
 Does the introduction present the problem clearly?
 Are the results/conclusions justified?
 How comprehensive and up-to-date is the subject matter presented?
 How adequate is the data presentation?
 Are units and terminology used correctly?
 Is the number of cases adequate?
 Are the experimental methods/clinical studies adequate?
 Is the length appropriate in relation to the content?
 Does the reader get new insights from the article?
 Please rate the practical significance.
 Please rate the accuracy of methods.
 Please rate the statistical evaluation and quality control.
 Please rate the appropriateness of the figures and tables.
 Please rate the appropriateness of the references.
 Please evaluate the writing style and use of language.
 Please judge the overall scientific quality of the manuscript.
 Are you willing to review the revision of this manuscript?

Response

4
 5 - High/Yes
 3
 4
 2
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 2
 N/A
 N/A
 N/A
 N/A
 3
 2
 1 - Low/No
 N/A
 N/A
 N/A
 2
 1 - Low/No
 1 - Low/No
 Yes

Comments to Authors:

Overall the article raises an important topic on surgical education and the surgical future and should be considered for publication.

Nevertheless, major revisions should be performed. You state following in your abstract:

“This article sets out to show the effects, that surgical societies and young surgeon committees can have on surgery and residency training, whilst also highlighting the personal side of being active on a committee. Our aim is to raise interest for participating in societal work by showing the rewarding general effects, as well as personal benefits.” This is achieved only partially after reading the article. The structure of the article can be improved regarding the aim of the paper.

Very importantly, German institutions have to be explained to the international readership:

For example: “events like “Nur Mut - ChirurgIn werden” [9] and “Staatsexamen und Karriere” [10] by the German Berufsverband”. A non-German reader will not understand what that means and what kind of event those are.

You talk about a lot of gender issues in surgery, the discussion of the literature as well as the discussion of the current guidelines for pregnant surgeons could be more thorough. What about “#meetoo in medicine/surgery”? There is a lot of international literature available on adverse events in pregnancy for surgical residents as well as publications on gender-specific quality of treatment for female vs male surgeons. How can these problems be affected with more active societal work, especially what can young surgeons do? You mentioned some, but overall the discussion should be more scientific.

I would rephrase the section “The Personal side” in “Personal motivation”

Regarding the section of personal motivation:

one should consider if the names should be mentioned. My suggestion would be:

Male/female, age, training status (intern/resident/with training year). I would also wish to hear more about what the authors/persons mentioned have already achieved for them or others through the work in a surgical society.

Authors' Response to Reviewer Comments

Nov 19, 2018

Reviewer #1:

1) This manuscript deals with important problems of German Surgeons. Nevertheless, there are major concerns. First, the author wants to publish in an international journal and their paper might be read by surgeons/doctors of different countries. The situation described and problems addressed in this paper are specific for Germany. This issue needs to be clarified.

Answer: Thank you for this important comment. We agree that this journal is an international journal and aimed at a diverse readership.

Yet it is also the official journal of the German Surgical Society and the Special Issue for which the article is submitted is that of the Young Surgeons Forum, of that very society, so the primary readership might be of German origin. Regardless, we have now addressed this shortcoming on numerous occasions throughout the manuscript and have discussed this limitation. Also we provided a table explaining some of the specific institutions or initiatives in Germany referred to in the manuscript.

2) Second, the English is not adequate (multiple syntax/grammar mistakes, unusual verbalisations) and needs to be revised by a native speaker. For example: Student days at congresses such as the “Deutsche Chirurgen Kongress” but also events like “Nur Mut - ChirurgIn werden” [9] and “Staatsexamen und Karriere” [10] by the German Berufsverband are excellent examples

> An international readership needs translations and adequate explanations regarding the institutions

Answer: Extensive revisions of the written English were performed. A table explaining the above mentioned institutions is now provided.

3) If surgery is simply a means to provide food and money for you and your family this article and work on a society is not for you and you'll probably not get to this point in reading anyways.

> I get the point but the sentence is difficult to understand and consists of multiple linguistic mistakes

Answer: This sentence has been revised.

Reviewer #2:

1) Overall the article raises an important topic on surgical education and the surgical future and should be considered for publication.

Answer: Thank you.

2) Nevertheless, major revisions should be performed.

You state following in your abstract: “This article sets out to show the effects, that surgical societies and young surgeon committees can have on surgery and residency training, whilst also highlighting the personal side of being active on a committee. Our aim is to raise interest for participating in societal work by showing the rewarding general effects, as well as personal benefits.” This is achieved only partially after reading the article. The structure of the article can be improved regarding the aim of the paper.

Answer: Thank you for the valid comment. Literature on this comment is scarce and a truly evidence based approach to this topic cannot be provided. As such, an opinion paper such as ours will always be limited. We added a little more “soft” evidence. We have reworked the manuscript, to reflect the special situation in Germany and discussed the limitations.

3) Very importantly, German institutions have to be explained to the international readership: For example: “events like “Nur Mut - ChirurgIn werden” [9] and “Staatsexamen und Karriere” [10] by the German Berufsverband” A non German reader will not understand what that means and what kind of event those are.

Answer: A table is now provided explaining these German institutions or campaigns and most German terms are erased from the text, where possible.

4) You talk about a lot of gender issues in surgery, the discussion of the literature as well as the discussion of the current guidelines for pregnant surgeons could be more thorough.

Answer: Thank you, we have added evidence for this point, however guidelines for pregnant surgeons or their application are quite different between countries and concerning Germany even between the different federal states. Giving an overview of the available legal restrictions or recommendations would go beyond the scope of this paper.

5) What about “#meetoo in medicine/surgery”?

Answer: We appreciate the input, however we do not see where this issue ties in to this article about societal work. It raises another

discussion that is neither within the scope of this article, not the scope of the special issue in which it shall be published.

Regardless, we agree that sexual harassment is an important issue in medicine and particularly in surgery; however we strongly feel that the discussion needed for this would put the article out of focus and proportion, thus we chose to not address this issue.

6) There is a lot of international literature available on adverse events in pregnancy for surgical residents as well as publications on gender specific quality of treatment for female vs male surgeons.

Answer: The whole paragraph about surgery during pregnancy has been revised and literature has been added. However, limiting the discussion is that the mainly American literature is based on different working conditions and laws. There, many pregnant surgical residents do not change their working habits (because they don't have the option to do so) probably leading to more adverse effects. The aim of the OPIDS initiative is to find a balance to keep the pregnant surgeon working in surgery, but yet to meet maternity protection laws. The initiative does not aim at exploiting the pregnant surgeon and expose her to relevant hazards.

7) How can these problems be affected with more active societal work, especially what can young surgeons do? You mentioned some, but overall the discussion should be more scientific. I would rephrase the section "The Personal side" in "Personal motivation" Regarding the section of personal motivation: one should consider if the names should be mentioned. My suggestion would be: male/female, age, training status (intern/resident/with training year). I would also wish to hear more about what the authors/persons mentioned have already achieved for them or others through the work in a surgical society.

Answer: Thank you for this comment. Concerning the personal achievements within the young surgeon committees the statements were revised as suggested.

Concerning the pseudonymization, we do not think this is necessary. We are proud to be associated with our work and opinion and feel that by withholding names the personal level of these statements would be lost to some extent. As such we chose to leave them in the manuscript for now.

If you would however see this as inappropriate we can always remove them as part of another revision.

In this context we also like to mention the following point: not every state in medical training or every position in the hospital hierarchy in Germany is similar to the ones existing in the US or UK. And then again we would have to choose whether we "translate" our position in the American or British system. This might not make the paper more international. It is however possible to add the amount of years in training regardless of the current position.

Thank you again for all the comments.

Reviewers' Comments to Revision

Reviewer 1: anonymous

Nov 27, 2018

Reviewer Recommendation Term:	Accept
Overall Reviewer Manuscript Rating:	50
Custom Review Questions	Response
Is the subject area appropriate for you?	4
Does the title clearly reflect the paper's content?	4
Does the abstract clearly reflect the paper's content?	4
Do the keywords clearly reflect the paper's content?	3
Does the introduction present the problem clearly?	4
Are the results/conclusions justified?	4
How comprehensive and up-to-date is the subject matter presented?	3
How adequate is the data presentation?	4
Are units and terminology used correctly?	4
Is the number of cases adequate?	N/A
Are the experimental methods/clinical studies adequate?	N/A
Is the length appropriate in relation to the content?	3

Does the reader get new insights from the article?	3
Please rate the practical significance.	2
Please rate the accuracy of methods.	N/A
Please rate the statistical evaluation and quality control.	N/A
Please rate the appropriateness of the figures and tables.	3
Please rate the appropriateness of the references.	3
Please evaluate the writing style and use of language.	3
Please judge the overall scientific quality of the manuscript.	3
Are you willing to review the revision of this manuscript?	Yes

Comments to Authors:

No further comments.

Reviewer 2: anonymous

Nov 19, 2018

Reviewer Recommendation Term:	Accept
Overall Reviewer Manuscript Rating:	N/A

Custom Review Questions

	Response
Is the subject area appropriate for you?	4
Does the title clearly reflect the paper's content?	4
Does the abstract clearly reflect the paper's content?	4
Do the keywords clearly reflect the paper's content?	4
Does the introduction present the problem clearly?	4
Are the results/conclusions justified?	4
How comprehensive and up-to-date is the subject matter presented?	4
How adequate is the data presentation?	4
Are units and terminology used correctly?	4
Is the number of cases adequate?	N/A
Are the experimental methods/clinical studies adequate?	N/A
Is the length appropriate in relation to the content?	4
Does the reader get new insights from the article?	4
Please rate the practical significance.	3
Please rate the accuracy of methods.	N/A
Please rate the statistical evaluation and quality control.	N/A
Please rate the appropriateness of the figures and tables.	4
Please rate the appropriateness of the references.	4
Please evaluate the writing style and use of language.	4
Please judge the overall scientific quality of the manuscript.	3
Are you willing to review the revision of this manuscript?	No: no revision

Comments to Authors:

Good response to the reviewer.