

The Imminent of General Surgery: Progressing to Encounter a Fluctuating Practice

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ABSTRACT

Purpose: As compared to other countries, the practice of General Surgery in Pakistan has gone through a series of important development over the last 30 years, despite major variable training models. There increasing concern is that the current teaching of General Surgery residency does not hold out enough skills that are essential to practice the scope of General Surgery in Pakistan.

Procedure: Executed by a National Force on the General Surgery Future, this project directed to advance guidance on the favorable configuration of Training on General Surgery in Multan. A consecutive series of studies based on evidence and a survey was introduced to inform these guidelines.

Results: The general results of a procedure in any study show the complexity of the practice in General Surgery.

- 1 Location matters a lot for a surgeon to practice surgery
 - 2 General surgery accompanies a strong grip for the overall clinical competence as well
 - 3 Today general surgeons experience a subspecialized training too
 - 4 Writing a proper report and guidelines for proper future surgical goals is also a part of training for General surgeons today
- To be a general surgeon in the 21st century, these are the four recommendations that are necessary to maintain.

Conclusion: This project mainly refers to the importance of location for fresh general surgery graduates, emphasizing the impact of variable location in contrast with the implementation of the same objectives of the surgery. The results of this study were sent to the Nishtar College to review the requirements of training and the work on a more precise and comfortable working scheme. Hence, we ensured that the GS RTP General Surgery Residency and Training Programs could work for the wider range of practice all around Pakistan for better training practices.

INTRODUCTION

Explaining the purpose and profile of General training surgery is essentially challenging as well as inherently important to make sure it is relevant as for the other generalists and specialists.¹ The academic centers tend to merge their specialties and subspecialties and to spread the training center to a greater area.²

Many Pakistani shareholders were agreed to the fact that the current training of residency needs to be essentially re-examined to match the needs of practice in a better way.

In addition to this, maybe in the realization of the factors that were exerting an impact on General Surgery context-specific context, we have immensely observed that our colleagues around the world are also facing similar challenges. One of those initial struggles to address these problems is shown in the Pakistani Surgical Association's Blue Ribbon Committee on surgical training.³ They issued several recommendations, concerning the surgical transformation in the presence of similar problems, considering demographic and technological requirements as well.⁴ A critical study conducted in America 5 years ago, a jurisdiction with conceivably similar General Surgery residency training, also manifests "significant issues" for teachers related to the correctness of General Surgery training.^{5, 6, 7}

MATERIAL AND METHODS

National Task Force led this project for the General Surgery future, which consists of leaders from a wide range of surgical areas and practice areas with a powerful background in surgical specialization and education of medicine. Realizing the significance of evidentially informed decisions, a sequence of four sub-studies and a national-level survey were done to brief the project to its participants.

Throughout 2012 and 2013 the project was divided into three phases. Phase 1 is known as Preliminary research. The national consensus summit was the 2nd phase and the third one was the development of recommendations. This study involves the methods, approach of these phases, and concludes specific details out of them.

Shareholder Interviews: The task force and the surgical leaders in Pakistan had very talkative sessions in form of a group throughout 2012. The shareholder representatives included people from the Pakistan Association of General Surgery, residential

groups, provincial ministers of health, and several national organizations.

National surgeons survey: We had a survey with National Surgeons certified by Nishtar Hospital Multan. The survey was done in collaboration with the Taskforce and the Medical Education Research center group. There were 2120 invitations sent to the General Surgeons by the Nishtar College to participate in this survey, out of which 570 were responded.

Jurisdictional Review: For further study on the given recommendations, we hold 6 casual semi-structured particular interviews with representatives around the globe. The interview was held at International Conference on Surgical Education and Training and the International Conference on Residency Education in 2012.

Historical Analysis: To get fully informed of the existing policies and the current practices, we conducted a historical analysis. Almost 2 key sources were used to analyze the historical data completely. A meeting was held regarding this issue and minutes of the meeting were circulated among the participants to get complete know-how of the procedure that was to be adopted.

National Summit on the Future of General Surgery, 2013: A full-day meeting was arranged that held in Multan. We were to discuss future goals with stakeholders from all around the world. The purpose was to understand and review the results from variable places about the future of General Surgery. The end conclusion included the overview of challenges in this particular discipline, the societal health competencies need for the General Surgeons to meet today and shortly, and the recommendations for the General Surgery Residency education future.

RESULTS AND DISCUSSION

A vast and large amount of data was collected during this project on the efficacy of training, formal patterns, and general surgeon practice patterns. As a result of this other important areas of this project would be published elsewhere. Multiple methods of generalized findings of the project explain the complexity of the current practice of General Surgery.

Different Practice Patterns adopted by general surgeons Depending on the Location of Practice:

There are a lot of important findings in terms of historical analysis regarding the heterogeneity of the discipline of general

surgery. As definitions by the Specialty Committee in General Surgery proved that, there is a broad range of practices done by general surgeons depending on the location in which they get training and do practice, also depends on the availability of other surgical and nonsurgical (sub) specialists working in these are surgical and nonsurgical areas.

Preparation for Overall Clinical Competence offered by general surgeon training:

A national survey demonstrated that almost all the residents at the end of residency felt prepared for practice in technical ability (92.4%) and clinical knowledge (97.3%). However, a small number of general surgeons indicated that they prepared regarding the skills needed to run a practice by only (23.1%).

A task was presented to the general surgeons. They were asked to perform a list of given almost 77 index procedures to represent the grip of their technical skills after they complete their residency test. Regarding 2 of the procedures (laparoscopic appendectomy and laparoscopic cholecystectomy), a minority (small number) of surgeons (23% and 32%, respectively) showed that they did not receive any training regarding these procedures. However, the best possible explanation is that these procedures were introduced after these residents had completed their residencies. Indeed, the test takers who were confident, competent, and did well in surgeries, graduated from residency training earlier. (laparoscopic appendectomy: mean graduation year of 2005 vs. 1985, t-test (428) = 15.15, $p < 0.001$; laparoscopic cholecystectomy: mean graduation year of 1998 vs. 1988, t-test (266.58) = 22.73, $p < 0.001$). results regarding the best preparation for clinical practice were also confirmed by early deliberations with leaders in General Surgery considered as part of the project.

The general results of this project give facts about a need to ensure that training is properly and efficiently matched to eventual and best-expected practice for all general surgeons. In particular, a considerable number of general surgeons in the national survey demonstrated that despite having received training, they still did not feel comfortable and confident performing specific surgical procedures independently. Specially, all the respondents never felt confident and comfortable performing certain procedures without the presence of a supervisor even after completing their residency.

Procedure, Respondents % (n)

- (1) Hepatic lobectomy
63.2 (214)
- (2) Pancreaticoduodenectomy
56.3 (202)
- (3) Any lung resection
55.4 (266)
- (4) Segmentectomy/lobectomy
53.0 (235)
- (5) Repair infrarenal aortoiliac
49.7 (248)
- (6) Total esophagectomy
58.5 (231)
- (7) Any complex anorectal procedures
49.9 (256)
- (8) Repair of esophageal perforation
52.3 (225)
- (9) Emergency embolectomy/thrombectomy artery
31.3 (223)
- (10) Adrenalectomy—open or MIS
40.1 (200)

Therefore, as a result of these findings, it is concluded that more training would be required in terms of specific requirements of eventual practice at the same time national standards of discipline must be maintained.

New Reality for Today's General Surgeons is Subspecialized Training

In the United Kingdom, the United States, and Australia, further training in other surgical subspecialties is undertaken by a

high percentage of general surgeons. In the national survey regarding this scenario of Pakistanis, 65% of respondents have shown that they have taken additional formal training even after the completion of their general surgery residency programs. Unemployment and undervalued status are the two main reasons stated by the respondents for putting extra effort in further training programs done by general surgeons. Another perception is seen in these surgeons. According to them, mastery and excellence could only be achieved by doing extra surgery practice which is otherwise difficult to achieve. Almost all of the surgeons who received additional training indicate that this was because of their interest in the field.

Report and Recommendations generation for the Future of General Surgery: Findings and implications from all the three phases of the project's report (1. Preliminary, 2.national summit, 3.development of recommendations) also were approved by the future of general Surgery Task Force. The report outlines a series of what appear to be reasonable, yet challenging, recommendations, with the main purpose of transforming general surgery residency in Pakistan to prepare graduates in a better way for further changing practice environment.

During the National Summit, the recommendations of the project were developed through a formal process. Small organized working groups of National Summit attendees were developed to discuss several key principles. The Taskforce agreed on value statements, which further acted as a starting point to ensure the development and shape of the recommendations. Iterations of the recommendations were further refined by following extensive discussions and starting work at the summit during the period of the summit via teleconference and email by the Taskforce.

Major four key recommendations were developed to attain the optimized level of General Surgery for the 21st century. To synthesize various avenues of research conducted through this project and the National summit with General Surgery leaders is the basis of the recommendations

The recommendations are based on a synthesis of all of the various avenues of research conducted through this project and the national summit with General Surgery leaders. They are written to speak to the potential redesign of General Surgery and to reflect the main findings of the project and residency training in this country, and to make the relationship strong between training and eventual practice.

CONCLUSIONS

The main objective of the General Surgery Task Force was to focus the priorities for General Surgery residency in Pakistan which was achieved by contributing to the national and international discourse of these topics. This project reflects the fact that high variability of practice depends on location which challenges the implementing principles of the same objectives of training for all General Surgery Graduates. Also, a need to revisit training was highlighted to ensure that the Nishtar College training programs are preparing residents up to the mark for optimal practice in all the settings across Pakistan.

The Future of General Surgery Task Force achieved its objectives of contributing to national and international discourse on the topic and focusing the priorities for General Surgery residency education in Canada. This project demonstrated that the high variability of practice dependent on location challenges the principles of implementing the same objectives of training for all General Surgery graduates. It also highlighted a need to revisit training to ensure that the Royal College training programs are indeed optimally preparing residents for eventual practice in all settings across Canada.

Because of a variety of factors, we can conclude that the discipline of General Surgery has importantly affected surgical knowledge and surgical care. The overall results of the project have elicited the Nishtar Medical College and its Specialty Committee in General Surgery to review the training specifications and consider a more "fit for purpose" training scheme, therefore,

ensuring that General Surgery residency training programs would near to perfectly prepare residents for a broad range of practice settings and locations all over Pakistan. The recommendations enlisted as part of this project would guide the new training scheme as the Nishtar College moves forward in directing the current state of General Surgery training and overcoming future concerns within the discipline.

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