



Original Article

The Student Room Survey: Changes in the Post Graduate Study for Cardiothoracic Surgery

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Abstract

Background: The number of postgraduate students in Cardiac surgical discipline is increasing day by day with incremental proportion are measurably suffering from the unnecessary lingering of the present course curriculum. The primary objective of this study was to find out the last 5 years' of results of Masters in Surgery course under the University of Dhaka from a student room survey. A secondary objective was to find out positive changes that could show us the way of a step toward up-gradation.

Methods: It is a retrospective analysis of all examination results of Cardio-vascular & Thoracic Surgery published since January 2008 to January 2013 from the University of Dhaka with in depth interview of 11 participants.

Results: 85.24% students failed to pass part-I of Masters in Surgery for Cardio-vascular & Thoracic Surgery course while, 82.18% in part-II and 71.28% failed to pass the final part. Average 2.51 attempts needed to complete each part of the designed course resulted into lingering of course duration for 42.18 months/student. In the thoracic surgery discipline the number of students alarmingly reduced up to 0% in the recent academic sessions.

Conclusions: Masters in Surgery is resulting in unnecessary prolongation of the course. We should step forward to meet the next generation challenge.

Keywords: Student Room, Cardiothoracic Surgery

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Introduction

Just a half century old surgery claims the superiority over most other specialties. Cardiac surgeons have always adapted to change rapidly and it's really inspiring to see innovative procedures developed in cardiac surgery over the decades. The complexity and integrity of the subject has been their hallmark. Though there is a strong leadership and the brilliant academic and technical skills of its practitioners in our country, cardiac surgery is still at cross roads.

There is a criticism regarding the educational process for completion of training and it is considered too lengthy. The work-loads and work hours during the general & cardiothoracic surgical training program, especially Masters in Surgery program are excessive and stressful. It leaves too little time for formal didactic teaching, individual study, family responsibilities, and recreation.

In current situation, jobs are more difficult to find, both in the private and government settings. Starting salaries have fallen and incremental failure in different phases of the course rendered it as a continuing struggle. Many students of the cardiothoracic surgery are disillusioned, contemplating a career changes, and voicing their unhappiness to anyone who will listen.

Materials & Methods

It is a retrospective analysis of all examination results of Cardio-vascular & Thoracic Surgery published since January 2008 to January 2013 by University of Dhaka.

Regarding in-depth interview of the participants, 11 students of Masters in Surgery of Cardiovascular and Thoracic Surgery participated willingly to answer a structured questionnaire. The study protocol and questionnaire was approved by the institution’s Ethical Committee, and informed consent was obtained from the interview participants.

The primary objective of this study was to find out the 5 years’ results from a student room survey from 2008 to 2013. A secondary objective was to find out positive changes that could show us the way of a step toward up-gradation.

Results:

Published results from the institute of postgraduate science & research, under the University of Dhaka, from January 2008 to January 2013 showed a quantitative outcome of the said course. We evaluated a total no of 412 attempts in Cardiac Surgery. Out of which 83 (20.14%) was successful attempts (Fig. 1). Whereas, in Thoracic surgery there were total 60 attempts with only 13 (21.66%) succeeded. A subclass analysis is shown in Fig. 2A, 2B, 2C & 2D.

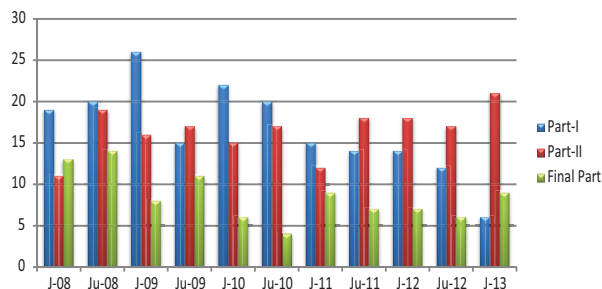


Figure 1. Masters in Surgery (Cardiothoracic Surgery) results depicts: reducing attempts in Part-I (subject losing common interest); increasing number of attempts in part-II (more student stuck in the course and more unsuccessful attempts) and fluctuating pass rate at the final part examination.

Our result shows, 85.24% students failed to pass part-I while, 82.18% in part-II and 71.28% failed to pass the final part of Cardiac Surgery course. Average 2.51 attempts needed to complete each part of the designed course resulted into lingering of course duration for 42.18 months/student. In the thoracic surgery discipline the number of students alarmingly reduced up to 0% in the recent academic sessions.

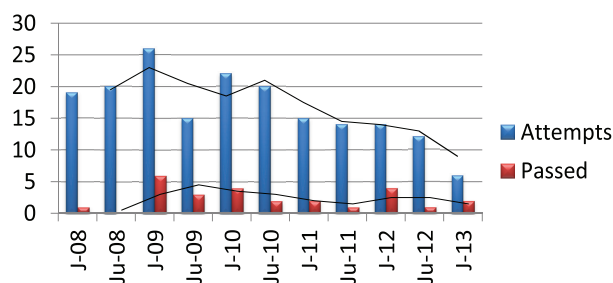


Figure 2A. Subclass analysis of part-I result showing an Average Pass rate: 14.21% in each session in Cardiac Surgery

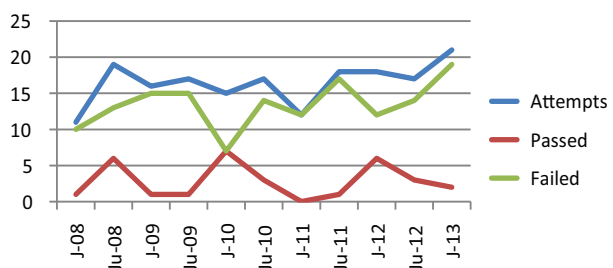


Figure 2B. Subclass analysis of part-II results showing an Average Pass rate: 17.12% in each session in Cardiac Surgery

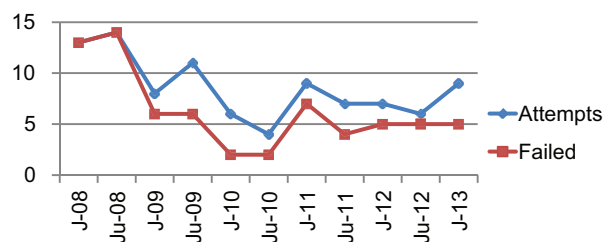


Figure 2C. Subclass analysis of final part results showing an initial Cent percent failure rate and subsequent incremental attempts rate

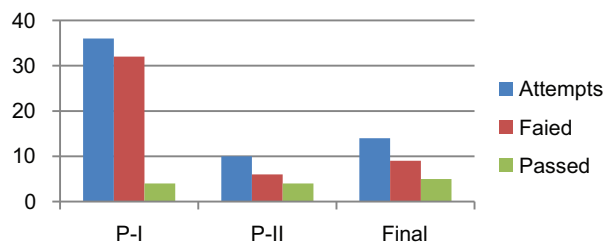


Figure 2D. Subclass analysis of Thoracic Surgery all part results showing a total reduction of number of candidate over the years

In depth Interview

11 students of Cardiovascular and thoracic surgery course under the University of Dhaka were interrogated with a preformed set questionnaire. 3 of the respondents were in final part of the course, 5 from part-II, 2 from part-I and one student from the thoracic surgery final part course. The questionnaire was dictated about course curriculum, examination format, examiner bias, exam fee, course relevance study, result publication, examination schedule, repeated poor result and quality of the preparation of the candidate.

61.7% expect to change their postgraduate course with other most popular alternatives. Students are split on whether they would consider studying abroad. Few students remain loyal to their postgraduate courses (20.1%). There was a clear conclusive opinion of the students as: non relevance study are more, delay in exam schedule and delay in result publication (Fig. 3).

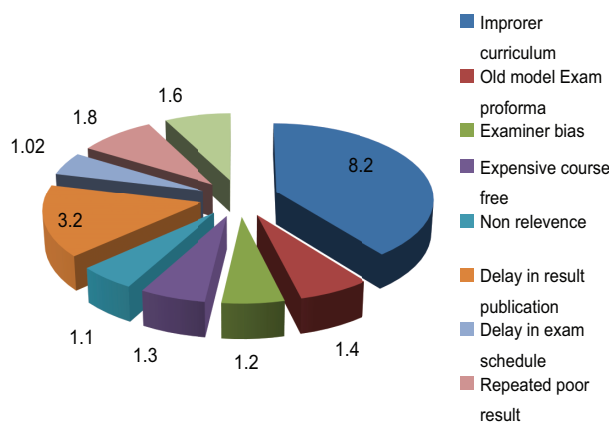


Fig.-3 Pie chart showing the in depth interview results regarding the causes and obstacles for the Masters in Surgery program

Students’ recommendations

We should have a international standard curriculum can be commenced under the guidance of National Curriculum Board, The Exam standard should be revised and updated, the exam fee need to be reduced, session loss by the delay of authority should be minimized.

Discussion

The overall statistics indicate that cardiothoracic surgery students are an endangered species. In Bangladesh, applicants for cardiothoracic surgery course have shown a clear decline, whereas there has been progressive increase in the takers for other specialties. Bangladesh & India, along with China, has more heart disease than the whole of the developed Western world¹. An estimated 200,000 babies are born with congenital cardiac defects each year. Over two million await valve surgery². Hypertension, diabetes, dyslipidemia, and smoking continue to be major public health problems, adding to the burden of coronary artery disease. The annual figure of 140,000 cardiac surgical procedures amounts to only a paltry 62.5 cases per million of the population in Bangladesh. This is in stark contrast to the 850 cases per million of the population in the developed world. At present, the cardiovascular health scenario faces a huge backlog of surgeon deficit, along with dwindling student enrollment^{3,4}.

The quoted reason by the students often include: “too much hard work,” (confusion between work and life’s passion), “late settlement in life,” (but it is about winning the war and not the battle), “can’t work under someone or with a team,” (man is still a social animal, despite willful denials)³. But still there are challenges that cannot be overlooked, such as: the technicality and surgical skills, fine motor works and refinements, and long learning curve. Thus from a student’s point of view, there are lots of uncertainties on the way, the road to a career in cardiothoracic surgery is apparently a long, bumpy ride. But interestingly, surveys have not identified medical specialists who are clearly happier or less happy than others⁶.

The newest fact is the technological advancement in cardio-thoracic surgical field provides ample opportunities for a new career path. Minimally invasive techniques and robotics offer exciting prospects in the field with limitless possibilities for innovation like in tele-surgery and tele-mentoring⁵. The advancements

in cardiology and catheter-based interventions should not be perceived as an obituary to open procedures. Upcoming “Hybrid Operation” will be the next achievable goal for us.

Above all, it is an unparalleled privilege to handle the human heart, the most dynamic organ of the human body. Thus, beyond all obstacles and hurdles, it would still be a right brain choice to walk this difficult yet fulfilling path.

Conclusion

We conclude that, Masters in Surgery course for cardiothoracic surgery is resulting in an unwanted and unnecessary elongation of the study period with poor exam results. Prospective changes are needed to be sought to make the course worth working.

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