

General surgery in crisis – factors that impact on a career in general surgery

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Summary

Introduction. The Association of Surgeons of South Africa (ASSA), because of a concern about the decline in the number of applicants for registrar posts, undertook this study into the various factors that may influence the choice of surgery as career option.

Methods. The study involved a combination of desk research and structured interviews with heads of departments, specialists, and registrars in general surgery.

Results. The reasons for choosing general surgery as a career included the immediately visible results of a surgeon's efforts and the practical and intellectual challenge of the specialty. General surgery continued to enjoy a high status in society. The greater focus on primary health care has affected facilities at tertiary and secondary institutions. General surgeons worked excessively long hours, which was associated with increased levels of stress and placed severe strains on family life. All respondents felt that their levels of remuneration were 'poor' in relation to other disciplines and professions.

Conclusion. In this study we identified various factors that impacted either positively or negatively on the choice of general surgery as a career option.

study into the working conditions, including factors that impact on the choice of general surgery as a career option, and remuneration of general surgeons in South Africa. The primary objective of the study was to collect and analyse comparative data that would enable ASSA to evaluate the relative equity of the working conditions and remuneration of general surgeons in South Africa. Relative equity in this context referred particularly to comparison with other fields of medical specialisation, but also included a comparison extended to other professions in general.

The study also included an assessment of the reasons why general surgeons chose medicine as a career option, why they decided to specialise in general surgery thereafter, their perceptions about the status of general surgery, and the various factors that impact on surgery as a career.

The findings from these studies would be used to develop strategies to correct the current inequities in working conditions and remuneration, and to enhance the attractiveness of general surgery as a profession to potential candidates.

In this study we present the factors that could either positively or adversely influence the choice of a career in general surgery.

Methods

ASSA requested P-ECS to report on the work environment, conditions of service and remuneration for general surgeons in the state sector. In particular, attention was to be focused on the nature of the work done, the hours worked and the responsibility of specialists and registrars in training in the academic and non-academic centres. In addition the impact on and the quality of family life was to be assessed and compared with colleagues in other disciplines such as cardiology, orthopaedics, dermatology, ophthalmology and anaesthetics. The remuneration of general surgeons was also compared with those of other professions such as judges, advocates, accountants, engineers and actuaries. Furthermore, the remuneration of general surgeons was compared with those in the UK, Australia, Canada and New Zealand, taking into account inflation, cost of living index and other relevant factors.

Interest in general surgery as a career option has diminished worldwide in recent years.¹⁻³ Similar trends have been noted in South Africa. The Association of Surgeons of South Africa (ASSA) has been particularly concerned about the decreasing number of applicants for registrar posts at the various medical schools, as well as the increasing number of vacant specialist posts in the state sector. Several factors could account for this trend. These include poor working conditions in the state sector as well as poor remuneration levels both in the state and private sectors.

In May 2004 ASSA took a decision to initiate a study to determine the extent of the problem. ASSA engaged P-E Corporate Services (P-ECS) to undertake a comparative

The study involved a combination of:

1. Desk research, which included a review of relevant data in professional medical publications, other studies, the Internet, and P-ECS's own extensive database of remuneration levels and employment policies across most sectors of the South African economy.

2. Structured interviews and focus group sessions with general surgeons, including heads of departments, specialists, registrars, and other medical specialists, as well as professionals in other fields such as law, accounting, engineering, etc.

3. Brief visits to international destinations that typically attract South African doctors, such as the UK, Australia, Canada, and New Zealand.

A total of 77 interviews with heads of departments, specialists and registrars were carried out in Gauteng, the Western Cape, the Free State, and KwaZulu-Natal. A structured questionnaire was developed to research the perceptions of recently qualified specialists and registrars about their choice of general surgery as a career option, and about the current state of the profession in general.

Perceptions of recently qualified specialists regarding general surgery as a career option

The opinions and perceptions of recently qualified specialists from both the state and private sectors regarding the choice of general surgery as a career option were researched. This was done using a structured questionnaire and supplemented by a follow-up phone call. Although the interview sample was relatively small (10 specialists, 6 of whom completed the detailed questionnaire), we believed that the responses provided a representative set of opinions. The responses received were in line with expectations and consistent with other interview findings.

The surgeons were asked about the reasons for choosing medicine as a profession, and in particular why they chose general surgery as a specialty. They were also asked about their perceptions of the status of doctors and specialists in South Africa and abroad, and whether the status has changed over the past 10 years. Further questions related to the

reasons why many doctors choose to emigrate, respondents' perceptions of the selection process for university and the standards of training, and working conditions, remuneration and lifestyle issues.

Results

The decision to study medicine

Most respondents stated that their decision to choose a career in medicine was a clear-cut one, based on an 'overwhelming desire to become a doctor' and a genuine 'love for the profession'. Half of the respondents had actively considered alternative careers, with engineering, chemistry, and even architecture and music rating consideration. Few doctors had considered careers in business. Reasons stated for choosing medicine included: (i) the intellectual challenge, status and standing of the medical profession; (ii) a desire to work with people; (iii) the wide range of options available to one after completing a medical degree; and (iv) the potential security and fulfillment of 'working for oneself'.

Many doctors interviewed felt that they would have been highly dissatisfied 'working in an office', i.e. in a business environment.

The decision to specialise in general surgery

The reasons stated for choosing general surgery as a career included: (i) the results of a surgeon's efforts were almost immediately visible and thus rewarding and satisfying to a surgeon; (ii) it was an extremely challenging specialty requiring comprehensive medical knowledge, immediate decision making, and considerable practical ability; it thus allowed a medical professional to 'strive for perfection'; and (iii) it provided an opportunity to 'work with your hands' – a specific skill requirement but also a source of satisfaction to most surgeons.

In some cases surgeons had experienced some initial uncertainties about their choice of this specialty. All, however, were now pleased that they had made the decision to specialise in surgery. The reasons given ranged from finding other specialties 'too narrow' to 'the time taken to see the results of your efforts'.



Perceptions about the status of general surgery

Half of the respondents believed that medical professionals continued to enjoy high levels of status in society. The collective view was that this status was earned primarily as a result of the intellectual standing of doctors rather than as a result of high incomes earned.

There was uncertainty about the relative status of general practitioners versus that of specialists. Some doctors believed that the public, particularly the more affluent, had less respect for general practitioners, and preferred to be treated by specialists. Others believed that there was little differentiation. One respondent expressed a view that general surgeons were not regarded as 'true' specialists in contrast to, for example, orthopaedic surgeons.

Half of the respondents believed that the status of doctors and specialists had declined significantly over the past 5 - 10 years. This decline was attributed to: (i) an erosion of public confidence and trust in the profession catalysed in particular by both the more litigious environment in which we live today, and the fact that the public were not disposed towards accepting any form of medical failure; (ii) the fact that the remuneration earned by medical professionals had declined considerably in recent years, in relative terms, in comparison with that earned by business executives and those employed in other non-medical professions; (iii) the poor image of the public health sector that had developed during the past 10 years ('the government-run health system is in shambles'); and (iv) the fact that doctors themselves had not been proactive in promoting the status of the profession or in challenging government regulations that had been imposed on the profession, where relevant.

Working environment

There was constant reference to the impact of the structural changes that have been made to the administration and delivery of medical services in South Africa. Government has placed stronger focus on primary health care and 'family medicine' with the primary objective of making affordable health care available to all South Africans. Implementation of this strategy has, however, had a variety of consequences, many of which have led to a deterioration in the quality of available medical facilities, services and standards.

To give effect to the policy of focusing on primary health care, significant government and provincial funding has been re-channelled from tertiary to secondary health care institutions. Facilities at most secondary institutions, however, remained very basic. In addition, such institutions suffered severe shortages of adequately trained and experienced practitioners. The lack of skills, experience, resources and capacity resulted in the institutions having little to offer to attract experienced medical practitioners. Young doctors allocated to these institutions were required to function with insufficient resources and without quality supervision at a key stage in their careers.

The problems noted above obviously impacted adversely on the training and skills development of young doctors. Registrars in general surgery were particularly vulnerable in this regard, given the fact that their work was particularly dependent on the use of hospital facilities and resources.

Factors noted by registrars as adversely impacting on their training and effectiveness included: (i) dirty, depressing and poorly resourced rest rooms, kitchens, sleeping quarters,

and offices, often lacking the most basic facilities; (ii) long working hours and sleep deprivation; (iii) unsympathetic and uninterested management; and (iv) lack of productivity tools such as cellphones and laptops, making it difficult to use 'on call' time effectively.

It should be noted that actual standards did vary from hospital to hospital. In addition, perceptions about the extent and seriousness of these problems also varied. For example, Groote Schuur Hospital was described by interviewees as 'still a model training hospital', and Universitas and Pretoria Academic hospitals as having excellent training standards.

The high work volumes and pressure under which registrars typically worked were also thought to have some real benefit – described as wide-ranging, 'crash course' experience gained at an early stage in one's career. The Trauma Unit at Johannesburg General Hospital was one such example.

Working hours

Most of the professors in general surgery who were interviewed worked well in excess of the 40 'normal' working hours required in terms of their employment contracts. Apart from their university commitments, they were 'on call' regularly, for which they were paid 16 hours of overtime. They also typically carried out 10 - 15 hours of private work, considered virtually essential to supplement the low levels of remuneration earned by state-employed medical professionals.

Registrars interviewed claimed to work between 80 and 100 hours per week. They were paid for only 56 hours based on the 40-hour normal working week and 16 hours of overtime. The situation was exacerbated by the fact that 'on call' arrangements often required long periods of continuous work. Examples were provided of registrars working continuously for 36 hours.

The tiredness and stress associated with the long working hours placed severe strains on family life at a time when many registrars would be establishing young families. It was also thought to be dangerous and risky when linked with trauma and the associated 'life and death' situations. There were also concerns about the possible risk of litigation.

Working hours were also considered to be excessive in relation to international practices. In the USA general surgeons currently work some 60 hours per week. In the UK estimates of average working hours ranged between 56 and 58 hours. However, the European Union regulations have introduced the European Work Time Directive, which prevents doctors from working more than 48 hours per week.

There was little doubt that long and irregular hours worked and the relationship between workload and reward had a material impact on the ability of the state to attract and retain general surgeons.

Emigration

Respondents were asked about work colleagues and associates and other medical professionals with whom they were acquainted, who had emigrated or who were considering emigrating. Respondents were asked to state what they thought the main reasons were for this decision.

Respondents were prompted with commonly cited reasons for emigrating, and the following responses were received:

1. Pay. There was a perception that the pay was better overseas, particularly in the state sector. However, doctors

were unsure about the impact of factors such as the exchange rates and the living costs.

2. Working hours. The opportunity to work a more 'normal' working week, i.e. less overtime as legislated in Europe, was seen as a big attraction at certain levels. However, it was recognised that this factor was situational.

3. Working conditions. Working conditions were generally perceived as being better, with 'more access to state of the art medicine', but not always so.

4. Career advancement opportunities. The opportunity to travel and gain international experience in the medical profession was seen as a plus, but opinions were divided on whether this benefited career advancement or not. Some respondents thought that South African conditions, i.e. the shortage of medical professionals, particularly in the state sector, the trauma load, etc. could provide unique opportunities for experience and career advancement.

5. Lifestyle issues. This factor was obviously influenced by personal perceptions and preferences. High crime levels and security fears were definite factors encouraging emigration. Educational standards were also of concern to certain people and groups. In contrast, the South African climate, standards of living and the lifestyle enjoyed by professionals were recognised as unique advantages of being South African. These were the reasons why many young doctors considered returning to South Africa.

6. Risk of HIV infection. The risk of HIV was another factor that could influence the decision to emigrate.

Training standards

Interviewees were asked to comment on issues such as selection of medical students for university admission, educational standards, and the requirement to do community service.

Half of the respondents believed that the current selection procedures were inappropriate, but offered little comment on how these should be changed or improved. Some thought that only academic criteria should be used, while others felt that 'the choice of trainees based on marks obtained accounted for most of the problems within the profession today'.

Over 80% of the interviewees noted that the training methods and structures had changed, but necessarily so given South Africa's history. A concern was expressed that South Africa had lost

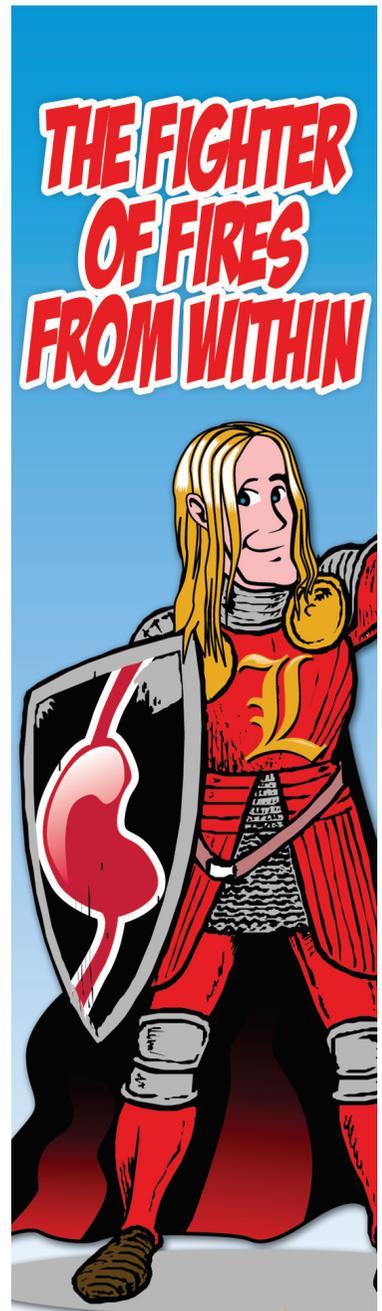
many good teachers and mentors to private practice and through emigration. Young doctors were therefore forced to cope with problems for which they had not had sufficient training or experience. This was contributing to the erosion of public confidence and trust in the medical profession.

Over 80% of the interviewees felt that the 2 years of compulsory community service was not necessarily a deterrent to would-be doctors. It was noted that similar requirements existed in other parts of the world and had not adversely impacted on student application levels. However, there was a real concern about how the 2-year community service period was spent. Interviewees felt that the community service period should be designated differently and incorporated into the structured postgraduate training of newly qualified doctors. Some thought that community service for medical students was discriminatory since similar requirements did not exist in other professions.

Stress and its impact on lifestyle

It was difficult to develop a consistent set of views from respondents about the level of inherent stress in a general surgeon's job and its impact on lifestyle issues. On the one hand there were obvious stresses associated with general surgery in that human lives were dependent on the skill of a surgeon. However, different individuals had different coping mechanisms, which allowed them to handle stress more easily, or less easily. It was clear that, as in the case of an airline pilot, a certain level of stress was an unavoidable component of every general surgeon's daily work life. Work stress also resulted from the need to make complex decisions and from long working hours. However, working hours varied widely. Those interviewed experienced between 1 and 2, and between 5 and 10 call-outs per week.

Registrars often worked abnormally long hours. One respondent had noted that he had regularly worked 36-hour shifts as a surgical registrar. Another had noted that he had worked successive 12-hour night shifts for a week, every 9 - 10 weeks. This situation was contrasted with the position in Europe and the USA, where working hours had been regulated to reduce the risk of fatigue.



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All interviewees indicated that general surgeons had less control over working hours than was the case with other specialties.

The risk of legal action against general surgeons was not seen as a deterrent to prospective entrants to the profession.

Remuneration

All respondents had a common perception that their levels of remuneration were 'poor' in relation to other professions. The comparison was drawn with top business executives, who earned multiples of what surgeons earned, while surgeons were required to take what were perceived as equally complex and risky decisions. The fact that remuneration in the medical profession had not kept pace with increased pay levels in other professions was attributed as one of the factors causing the perceived decline in status of the medical profession in recent years.

The above concerns extended to perceptions about future earning potential as well, particularly in the state sector. All interviewees expressed reservations about their ability to provide for normal family commitments and comforts, i.e. housing in a good suburb, decent schooling and education for their children, in line with personal aspirations. Those in the state sector noted that the difficulty of surviving on a government salary would probably precipitate a future move into private practice.

Discussion

The Association of Surgeons of South Africa has identified and was concerned about the decline in the number of applicants for registrar posts and the critical shortage of general surgeons in the state sector. ASSA commissioned P-ECS to undertake a comparative study into the remuneration and working conditions of general surgeons in South Africa, as well as an evaluation of the various factors that may impact on general surgery as a career option. The study involved desk research, structured interviews and focus group sessions with general surgeons.

Interviewees were asked about their reasons for choosing a career in medicine. The intellectual challenge and the standing and status of the medical profession, as well as a desire to work with people, were some reasons why doctors did medicine. Respondents chose a career in surgery because the results of the surgeon's efforts were immediately visible, and it provided an opportunity to work with one's hands. Surgery was also regarded as an extremely challenging specialty, requiring both theoretical knowledge and practical ability. All of the surgeons were pleased that they had made the decision to specialise in surgery.

The perception was that medical professionals continued to have high status in the community, and that this was related to their intellectual standing rather than a high income. However, many of the respondents believed that the status of doctors and specialists had declined in recent years, due to erosion of public confidence in the profession, the decline in the remuneration earned by medical professionals in

comparison with business executives, and the poor image of the public health sector.

It is well known and accepted that choice of a career in medicine requires a corresponding commitment to a lengthy period of study and practical training.^{4,5} The commitment is particularly onerous when a doctor goes on to qualify as a specialist. General surgeons are required to spend some 12 - 13 years undergoing various forms of training before they are able to begin to earn at levels comparable with other professionals and commercial sector executives. The career choice of medicine and general surgery is usually based on clear-cut desire to enter the profession. Medical students are therefore prepared to accept the lengthy training and qualification requirement in the knowledge that they will eventually qualify to do what they really want to do.

However, it would be naïve to assume that 'lifestyle' factors, such as work opportunities, conditions, compensation etc., do not also play a very significant part in influencing career choice decisions.⁶⁻⁸ In this regard opportunities for wealth accumulation play an obvious role. Young surgeons qualify to practise at a time when their professional peers are well advanced in their careers and are earning at highly competitive levels. Medical students are extremely ambitious and therefore likely to expect to earn competitively after qualification.

Unfortunately this is far from the case with state-employed specialists. The combination of low, uncompetitive levels of remuneration, coupled with long working hours and sub-standard facilities, provides an overwhelming disincentive for doctors and specialists, and general surgeons in particular, to remain in state employ. It is difficult to visualise any impact being made on current, critical shortages of skills in the state sector until at least some of these issues are addressed.

It is well known that a significant number of medical graduates choose to emigrate from South Africa. Reasons included the perceived better remuneration, more normal working hours, better working conditions, and better career advancement opportunities overseas. Lifestyle issues such as crime and educational standards were also factors. The impact of the HIV epidemic was also cited as a reason why doctors choose to emigrate.

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