Author's response to reviews

Title: Who Wants to be a Surgeon?

Authors:

Thomas H S Fysh (thomas.fysh@btinternet.com)
Geraint Thomas (geraint.thomas@gmail.com)
Harold Ellis (harold.ellis@kcl.ac.uk)

Version: 4 Date: 25 August 2006

Author's response to reviews: see over
Author's response to reviews

Title: Who Wants to be a Surgeon?

Authors:

Thomas H S Fysh (thomas.fysh@btinternet.com)
Geraint Thomas (geraint.thomas@gmail.com)
Harold Ellis (harold.ellis@kcl.ac.uk)

Version: 4 Date: 18 August 2006

Author's response to reviews:

Revisions made to Who Wants to be a Surgeon

Michael J Goldacre

Thank you very much for the time spent reviewing our paper.

Major Compulsory Revisions

1 Opening sentence of the Introduction "the medical profession is generally representative of society as a whole". Revised and rewritten. Theme revised throughout paper. BMJ reference replaces BMA reference; thank-you.
2 ? Validity of chi squared as a statistical test. I have, again, put the statistics before the lead statistician at the Royal Free Hospital, who assures me that chi squared is the correct test to employ. Point taken about using the term "valid" as a mathematical term. This has been changed. It is felt that the main finding (i.e., that the proportion of women intending to do surgery is much smaller than men) is well demonstrated by chi squared.

Minor Essential Revisions

1 Word "trend" substituted for 'phenomenon'.
2 Phrase 'what kind of a person wants to be a surgeon' has been substituted for This project aims to discover the career intentions of the first year medical students at Guy's King's and St Thomas' medical school early on in their training
3 Response rate was 100%. I have added '100%' although I do state that 'All 300 surveys were completed and used
4 It is accepted that the workings of the chi squared test do not need to be gone through step by step. (I only included this after being questioned on it in the preparation stages). Detailed steps have been removed. I agree with the point that if a higher proportion of women want to do paediatrics then a smaller proportion are left to choose surgery, but I have not made any comparisons within the male or female groups - they are still independent from each other - i.e. a higher proportion of men wanting to do surgery does not leave a smaller proportion of women wanting to do surgery (the same applies to ethnic groups and schooling). Again, I have put this point to our lead statistician, who believes that stats are still valid.
5 Phrase '22.3% of students did not know what they wanted to do at all' changed to 'While 22.3% of students did not show a career preference at this stage'
6 It is agreed that in most categories of ethnic group and speciality, numbers are too small to analyze and I have now acknowledged this. I have made it clear that for ethnicities, I have only looked at career intentions as 'surgery' and 'not surgery' rather than each separate speciality.
7 All terms now expressed as percentages.
8 Phrase 'career prospects' changed to 'career preferences'
9 I have looked at Prof McManus’ list of publications (he, rather helpfully has his own website). I was aware of his work and cite one of his papers but his work on medical students concentrates on the process of entry into medical school primarily. The paper I do cite was very helpful (McManus IC, Sproston KA. Women in hospital medicine in the United Kingdom: Glass ceiling, preference, prejudice or cohort effect? J Epidemiol Community Health. 2000 Jan; 54(1): 10-6), but it remains the fact that I am unable to find another paper which looks at the career intentions of first year medical students in the UK.
10 The term ‘their predicted future career’ refers to the part of the questionnaire which asks students what
they thought they would actually end up doing (rather than what they would like to do - if they were any differences). I then went on to ask why there might be a difference. I agree it sounds clumsy and confusing and have changed it to 'their own predicted future careers'.

11 I agree that figure 1 is overkill and have removed it.

Discretionary reviews

12 'life-long conditioning' changed to 'views held prior to entering medical school'
13 'anyone who has the ability and ambition' changed to 'Although competition and selections is inevitable in a surgical career, being female should be no reason to avoid one'
14 'and we have seen the benefits as a result' I agree that this is a bit ethereal and I have removed it.
15 I feel that in this case, the increased diversity (i.e., the addition of women) does increase the numbers as it does not need happen to the exclusion of male applicants. I agree that in general, increasing diversity does not always increase actual numbers and have changed the phrase to 'that by increasing the numbers of applicants, one is more likely to appoint the best candidate for the post'
16 I agree that this phrase is a bit tabloid and have removed it.
17 On reflection I agree that this need not be 'an extremely slow process' as you point out, it has happened quite quickly in medicine on the whole. I have amended the sentence and sentiment throughout the paper accordingly.

Revisions made to Who Wants to be a Surgeon

Gregory Rutecki

Thank you very much for the time spent reviewing our paper.

Major Compulsory Revisions

1 The project was carried out while I was demonstrating anatomy at Guy's King's and St Thomas' Medical School. It was these students, therefore, whom I was able to question. I do not and did not have access to any others! I really feel strongly that our results remain valid even if they come from just one medical school - is there any reason to suspect our medical students are any different from those in another medical school?. We have good numbers and this is all that matters in a chi squared test - we are not comparing a sample mean to a population mean and so our sample does not have to be typical of the population. I have explained this in more detail in the conclusion/study limitations section. I have discussed this point in depth (along with the statistics as a whole) with our lead statistician at the Royal Free Hospital who feels that chi squared is the best test to use and that it has been used appropriately (although we concede that in most categories of ethnic group and speciality, the numbers are too low - for this reason, the ethnic groups were categorized into surgery and non-surgery for the purposes of the test. - this is acknowledged and explained in the rewrite)
2 I agree entirely that some convincing papers conclude that lifestyle is an important, if not, the most important influencing factor on actual career choice of female doctors (although, importantly, not all papers). I have amended the paper throughout to highlight this but... The real point of my paper is to look at career intention, before exposure to the system; we feel that our results demonstrate that, at this stage, lifestyle consideration is not so important (being mentioned only 4 times throughout the study). I agree that had we asked directly, this number might have increased, but, as we explain in the study limitations section, we felt that this could be considered to be leading the students. In conclusion, I do not think that a negative lifestyle is not a significant dynamic in the decision-making process that deters women from becoming surgeons' and I have amended the paper to demonstrate this - We are just making the point that there is a real problem much earlier on and that even before practical thought comes into making a career choice (e.g. at junior doctor level), women do not seem to be interested in surgery. It is also for this reason that I do not feel the group need be looked at as a cohort - I agree this might be interesting but it is a different project and not part of the aims and I have tried to clarify our aims and conclusions accordingly. Apart from anything else, it would be virtually impossible as the students are now dispersed in different hospitals and I have left Guy's, King's and St Thomas!

Minor Essential Revisions

1 'Ethical' changed to ethnographic
2 Corrections to references 19 and reference 21 changed to a better one on the suggestion of a second reviewer with date accessed.

Discretionary revisions
Although I agree that, since the study was carried out in one medical school, extrapolation is limited (and have reiterated this point throughout the paper), we also make the point that there is no convincing reason to think that the Students at GKT should be any different from those elsewhere (and that the gender/ethnographic make up of the student populus is immaterial so long as actual numbers are large enough to test using chi-squared). This point was made at an initial presentation and (with the help of one of our statisticians) I have tried to explain it in the study limitations section. In principal, though, I agree that our results (since they were obtained at GKT only), can strictly speaking only apply to GKT - but lots (if not most small studies are researched at one establishment for practical reasons.