Research ethics

A survey of newly appointed consultants’ attitudes towards research fraud

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Abstract

Objective—To determine the prevalence of, and attitudes towards, observed and personal research misconduct among newly appointed medical consultants.

Design—Questionnaire study.

Setting—Mersey region, United Kingdom.

Participants—Medical consultants appointed between Jan 1995 and Jan 2000 in seven different hospital trusts (from lists provided by each hospital’s personnel department).

Main outcome measures—Reported observed misconduct, reported past personal misconduct and reported possible future misconduct.

Results—One hundred and ninety-four replies were received (a response rate of 63.6%); 55.7% of respondents had observed some form of research misconduct; 5.7% of respondents admitted to past personal misconduct; 18% of respondents were either willing to commit or unsure about possible future research misconduct. Only 17% of the respondents reported having received any training in research ethics. Anaesthetists reported a lower incidence of observed research misconduct (33.3%) than the rest of the respondents (61.5%) (p<0.05).

Conclusion—There is a higher prevalence of observed and possible future misconduct among newly appointed consultants in the UK than in the comparable study of biomedical trainees in California. Although there is a need for more extensive studies, this survey suggests that there is a real and potential problem of research misconduct in the UK.

Keywords: Research fraud; research misconduct; research ethics; scientific fraud; scientific misconduct; fraud

Introduction

There seems little doubt that research fraud does occur. Beyond that, however, very little is known about it. A medline search revealed only two papers (both questionnaires) which addressed the prevalence of research fraud. One of these papers was American and one was Norwegian and both papers directed their questionnaires at different target populations. The American study was directed at biomedical trainees and the Norwegian study was directed at academic medical researchers. The Norwegian study reported that 18% of respondents agreed fully or in part that they had been exposed to scientific misconduct whilst the American study reported that 15.1% of their respondents admitted personal instances of misconduct. The author wondered if these papers’ conclusions would be valid in a different country among recently appointed medical consultants nearly a decade later.

Method

A modified version of the original questionnaire used by Kalichman and Friedman was sent to all newly appointed (not necessarily the same as newly qualified) medical consultants (appointed between Jan 1995 and Jan 2000) working for seven separate hospital trusts in the Mersey region. The breakdown of the different hospitals involved was four district general hospitals, two university teaching hospitals and one specialist paediatric hospital. A stamped addressed envelope was enclosed with each questionnaire for the replies. A covering letter was sent with each questionnaire emphasising that each individual reply would be kept anonymous and that only generalised conclusions would be drawn from the questionnaire. In all 305 questionnaires were sent out between February and April 2000.

Results

In total 194 replies were received (a response rate of 63.6%) (see table 1).

One hundred and eight (55.7%) of the respondents reported that they had observed some form of research misconduct (ie answered yes on question 1, 2 or 3) (see table 2).

The most frequently reported form of observed research misconduct was that of inappropriate authorship (ie yes to question 1) reported by 72 (37.1%) of the respondents. Fifty-eight (29.9%) reported that their names had been omitted from papers to which they had made a substantial contribution and 21 (10.8%) reported having first-hand knowledge of the intentional altering or fabrication of data for the purposes of publication.

Eleven (5.7%) of the respondents admitted to past personal misconduct (ie answered yes to questions 4a, 4b, 4c, or 4d).
Four (2.1%) admitted cheating on a test and the same percentage admitted modifying research or experimental results to improve the outcome. Two (1.0%) of the respondents admitted that they had reported untrue research or experimental results and two of the respondents admitted plagiarising the work of other people.

One hundred and fifty-nine (82%) of the respondents were not willing to consider future possible research misconduct (no to question 5a, 5b, 6a and 6b) which leaves the remaining 35 being either willing to commit (eight [4.1%]) or being unsure about (27 [13.9%]) possible future research misconduct.

The majority of respondents (116 [59.8%]) felt it necessary to publish papers in order to further their careers and a minority of respondents (17%) reported having received any training in research ethics.

Of the 194 respondents, 83 (42.8%) felt that more time and resources should be spent investigating possible research fraud whilst a similar percentage (40.2%) was unsure.

Of those who replied, 32 (16.5%) stated their specialty as being anaesthetics; 16 (8.2%) surgery; 15 (7.7%) general medicine; 15 (7.7%) radiology; 12 (6.2%) paediatrics, and 9 (4.6%) orthopaedic surgery. (See table 3). Anaesthetists reported a lower incidence of observed research misconduct (33.3%) than the rest of the respondents (61.5%) and this reached statistical significance on a χ-squared test (p<0.05) (see table 4). Surgeons reported a higher incidence of observed research misconduct (68.7%) than the rest of the respondents (55.1%) but this difference is not statistically significant.

Discussion

The true prevalence of research misconduct appears unknown and most references to it are speculative. In 1988 Lock reported that over half of the academics he had questioned knew of instances
Research misconduct. Verent perceptions of which practices constitute different groups of researchers have been shown to have for the perception of research misconduct. Di study populations—for example, a lower threshold degree, reflect di of actual research misconduct or may, to some extent. Newly appointed consultants differ in their background from the respondents. Newly appointed consultants differ in many characteristics from other doctors and it would be unwise automatically to extrapolate these results to the entire profession. I do, however, believe that this survey indicates that there is a real and potential future problem of research fraud in this country and that the magnitude of that problem is probably compatible with that experienced by other countries.

Author’s note
Initial literature search strategy: Medline 1966 to 01/00 using OVID interface. Competing interests: none declared.

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