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Dishonesty in the MRCP(UK) Part 1 and Part 2 written examinations: prevention, detection and possible remediation

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Why do people cheat in examinations and why is it wrong?

The relationship between the medical profession and society, and between individual doctors and patients, is based on trust. Behaviour that compromises that relationship damages not only the standing of the medical profession but potentially harms individual patients. The General Medical Council (GMC) explicitly underlines the centrality of trust in its publication *Good medical practice*.[1] In the area on 'probity' there is a subsection dealing with 'Being honest and trustworthy' which states:

> *56. Probity means being honest and trustworthy, and acting with integrity: this is at the heart of medical professionalism.*
>
> *57. You must make sure that your conduct at all times justifies your patients' trust in you and the public's trust in the profession.*

And also:

> *64. You must always be honest about your experience, qualifications and position, particularly when applying for posts.*

Clearly all of the above would be breached by any attempt to cheat in exams and, for this reason, the MRCP(UK), and the doctors who are involved with it have a professional duty to identify and investigate any instances of possible cheating.

Medical students and trainees often do not see cheating in examinations or course work in the same category as defrauding patients. 'I didn't think it was that wrong because it's not related to patients is it?' one student declared when found cheating in an MCQ examination (personal communication). The literature shows that cheating in examinations is not new. In an American study[2] in the early 1970s when college students were asked whether 'cheating in exams was a way of life?' 93% answered yes; and to dismiss the illusion that medical students might behave differently, a study in the USA in 1980 found that over 58% of medical students admitted to cheating in assessments.[3] Studies on cheating are mostly from the USA and concern college students; in the UK, studies in medical schools tend to centre on students being asked about certain behaviours and whether they would see these as cheating or whether they had considered, or would consider, cheating. In a study by Rennie and Crosby in a Dundee medical school in 2001, students were asked whether they had ever engaged in, or would consider engaging in, a number of different cheating behaviours, from copying answers in examinations, where 2% of students reported 'yes', to copying directly from published text and only listing it as a reference, where 56% agreed.[4]

The background to a particular individual's likelihood to cheat is probably multifactorial. There are familial, religious and cultural values that are acquired long before medical school. For example, countries and cultures exist where bribes and dishonest behaviour are almost a norm. There are secondary schools in which neither staff nor students tolerate cheating and others where cheating is rampant; there are parents who pass on to their children high standards of ethical behaviour and others who leave ethical training to the pernicious influence of television and society in general.

Overall the findings of studies on cheating show:

- cheating is less common at college than at high school, although those who have cheated previously are more likely to do so again
- males admit to more cheating than females
- stress and pressure for good grades are the main reasons given for cheating
- cheating is seldom detected and, even when it is, action is only rarely taken
- more able students are less likely to cheat.[4]

Behavioural studies on cheating suggest students commonly engage in cheating for one or more of three reasons. Firstly, the student does not perceive the behaviour to be wrong – the 'no-one was harmed' defence. Secondly, cheating is common at this institution/in this area – the 'everyone does it' defence and lastly, the pressure to succeed – the 'I'm not able to get the grade I need without cheating' defence. It is possible, with the greater emphasis on assessment and its influence on the intense competition to get on to a training pathway, that current trainees feel under more pressure to succeed. Now that the MRCP(UK) examinations are mandatory for entry into UK higher specialist training, fairness and steps to eliminate cheating are even more important. Successful achievement of the MRCP(UK) Diploma is a marker that the candidate has reached a competent level of general medical training; consequently strenuous efforts are made to ensure that only those candidates who have personally achieved this level are granted the diploma. To pass, trainees

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who have not achieved this level would not only compromise the good name of the three colleges that make up the Federation of Royal Colleges of Physicians of the UK but could compromise patient safety. The MRCP(UK) Diploma does not solely confer 'membership' but is a requirement for physicians wishing to undergo training in a medically-related specialty in the UK that has very direct implications for patient care. The risk of harm is much greater in vocational professional examinations and therefore the onus to detect and prevent cheating is arguably of much greater importance.

Prevention and detection of cheating

Prevention of cheating can start even before any assessment. At the outset, candidates applying to the MRCP(UK) have their primary medical qualification and, if appropriate, their GMC registration verified. The importance of the influence of the culture of an institution – 'the way we do things here' should not be underestimated. Honour codes and declarations have been used in several American universities to highlight the moral responsibilities of students in examinations, to emphasise the seriousness with which cheating is viewed by faculty and to reiterate the severity of the penalties for those found cheating.[5] This approach has also been adopted by the MRCP(UK) – the regulations state:

> *Candidates have a duty to report (to an invigilator or MRCP(UK) Central Office) any concerns they have that another candidate was attempting to read their work, or any other instances of possible misconduct they see.*

Additionally, at the start of every written examination invigilators make announcements emphasising this responsibility.

Within assessments there are simple practical measures, common to all written examinations, which can be taken. Increasing the distance between candidates' desks and having a greater number of invigilators are simple solutions which certainly discourage cheating by making it more difficult and increasing the likelihood of being caught. Using CCTV cameras can help invigilators with their task but are extremely costly and are usually only employed where the organisation owns the assessment premises. Creating multiple versions of a written test so that no two students receive an examinations paper with the questions in the same order is an effective measure against copying. While superficially attractive, this creates an enormous amount of work for the organising body and, for large examinations, is not feasible unless computer terminals are used to administer the assessment. Notwithstanding this issue, in January 2011 the MRCP(UK) Management Board agreed that the written exams should move towards computer-based testing (CBT) delivery as soon as possible.

However, in the electronic age cheating is becoming much more sophisticated. An enterprising student using a smart phone or a personal digital assistant (PDA) can exchange notes with other exam takers, receive text messages from colleagues outside the lecture hall or search the internet. Technology can make cheaters harder to spot. Consequently, organisations are increasingly using technology themselves to detect cheating. The MRCP(UK) use a copying detection software system called Acinonyx developed by Professor Chris McManus. The program was initially used in 2003 in the MRCPCH examination and reported in the *BMJ* in 2005.[6] Acinonyx considers the similarity of the answers of all possible pairs of candidates taking an examination, irrespective of whether the candidates are sitting in the same centre or different centres and identifies anomalous pairs of candidates, ie those whose answers are significantly more alike than would be expected by chance. The program provides evidence that requires further investigation, such as scrutiny of seating plans, question booklets for notes and changed answers, information from invigilators and interviews with candidates, before actual cheating can be proved. This program is run after every written paper to search for anomalously similar patterns of answers between pairs of candidates. Acinonyx can be applied to almost any format of examination where items can be regarded as right or wrong. When Acinonyx identifies an anomalous pair of candidates but there is no corroborating evidence of who might be the guilty party both are sent a letter from MRCP(UK) highlighting the anomaly without apportioning blame. Arrangements are made to seat them separately for the next written examination they enter. The aim of this is to raise awareness of the software program and to deter repeat instances of cheating. If both candidates fail there is no potential for harm but what if both are deemed to have passed, there is no other evidence available, candidates have completed both written components, and there is a suspicion that one candidate copied from the other? The practice in the USA would be to require both to immediately resit the examination in separate rooms, on the grounds that the better candidate will pass and the cheat will be revealed.

In May 2010, MRCP(UK) initiated a project to specifically address the issue of cheating in the written examinations. The aims of this project are to eradicate the occurrence of anomalous pairs where possible and, where anomalous pairs are identified, to ensure that corroborative evidence has been collected. This represents a fundamental shift of focus – from catching misconduct to trying to prevent it happening in the first place. The initial focus of this project has been to highlight awareness of cheating and to improve existing practices particularly in UK centres where anecdotally cheating seems more prolific. New guidelines and more training for invigilators; the institution of a minimum ratio of one invigilator to 25 candidates at all times and additional attention to desk spacing have all meant that cheating is now much more difficult than previously was the case and also it is much more likely to be detected. Invigilators have also been instructed to proactively speak to any candidate acting at all suspiciously, which alerts the candidates to the fact that they are being monitored and deters them from continuing their behaviour. Finally, invigilators have also been 'zoned', ie given specific responsibility for paying close attention to a small group of students, rather than being asked to monitor the whole

cohort. Anecdotally within MRCP(UK) assessments, adoption of these simple measures appear to have reduced the numbers suspected of cheating.

In 2008, the Acinonyx program identified a candidate to have been part of an anomalous pair on three occasions. On the last of these occasions there was corroborative evidence of cheating from an invigilator and the individual was reported to the GMC. At a fitness to practise hearing in October 2010, the GMC panel upheld the accusation of cheating saying: 'The panel was satisfied from the evidence...as to the statistical improbability of there being an innocent explanation for these coincidences.' This case (www.gmc-uk.org/static/documents/content/Ahmad(2).pdf), and a similar case from the Royal College of Paediatrics and Child Health (RCPCH) (www.gmc-uk.org/static/documents/content/Singh(2).pdf), creates an important precedent. Previously, Acinonyx was effectively untested and unchallenged. These cases saw Acinonyx being formally considered in a courtroom environment and, on both occasions, independent panels have accepted the strength of the evidence it provides. In both cases the panels specifically found that cheating in exams meant that the doctor presented a risk to patients and the GMC took robust action (a nine-month suspension in the MRCP(UK) case and permanent erasure for the RCPCH case). The current policy is to refer all candidates who have been identified as cheating in an exam to the GMC.

However, there is an ethical dilemma to be considered. Using the GMC's practice of finding an individual guilty on the balance of probabilities could mean a risk of penalising the innocent and potentially destroying a doctor's career. How much then should the balance be exclusively in favour of patient safety?

Is it possible to remediate cheats?

Although cheating is the behaviour that is detected, it is the underlying attitude leading to this behaviour that needs to be addressed. In some cases of cheating which have come to light in a doctor's postgraduate career a similar pattern has been found when closer scrutiny of earlier work has been undertaken indicating that this behaviour is not just a one-off aberration and that their attitude appears to be that cheating is acceptable. Changing attitudes is difficult and probably requires the individual to change their underlying belief with regard to cheating. How to remediate such an individual is a difficult question with no definite answer. However, perhaps a way forward would be to directly address the commonly stated reasons for cheating which are:

- it does not impact on patient care
- everyone does it
- passing the assessment is not possible without it.

Addressing these issues directly in MRCP(UK) statements on cheating might go some way to dissuading would-be cheaters of any mitigation of their actions. After all, the prevention of cheating is a much better outcome than just being better at detecting its occurrence. Whatever future developments occur in the detection of cheating probably the most important message the medical profession needs to make loud and clear is one which says 'that's not the way we do things here!'.

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