ORIGINAL ARTICLE

Survey of junior hospital doctors' attitudes to cardiopulmonary resuscitation

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Most cardiac arrest teams are made up of junior doctors. The stressful effect of cardiopulmonary resuscitation (CPR) on doctors has not previously been established. A questionnaire was sent to all 52 junior doctors who participated in the cardiac arrest team at a district general hospital. Forty one questionnaires were returned by 22 junior house officers, 12 senior house officers, and seven specialist registrars. The questionnaire was anonymous so non-responders could not be recontacted. Seventy three per cent found CPR stressful. The main reason for stress was the inappropriateness of CPR on the individual patient (12), poor outcome (13), no advanced life support (ALS) course (4), and the procedure itself (4). Fifty four per cent felt the number of inappropriate CPR had increased in the last six months with the main reason given (48%) being failure of senior staff to make "do not resuscitate" orders. Ninety seven per cent felt some CPRs were inappropriate; 70% felt a debriefing session should occur after CPR, while 88% reported not having one. Seventy six per cent felt competent at performing CPR, 22% felt incompetent of whom none had undergone ALS training. Fifty eight per cent found it difficult to discuss CPR with patients; 46% found it difficult to discuss CPR with relatives.

Most junior doctors feel stress from CPR. Adequate review by senior doctors with documentation of do not resuscitate orders where appropriate, after discussion with patients, might be beneficial. Adequate training, improving communication skills, and support for junior doctors in the cardiac arrest team need to be reviewed since improvement in these areas may reduce stress.

Stress is defined as a physical, mental, or emotional reaction resulting from an individual's response to environmental tensions, conflicts, pressures, and similar stimuli.¹ Work related stress and anxiety doesn't only affect the doctor's health but it can also have a detrimental impact on the quality of patient care provided.²

Most cardiac arrest teams in hospitals are made up of junior doctors who carry the responsibility of dealing with this most acute medical emergency. Failure of a doctor to react swiftly and in an appropriate sequence at a cardiac arrest may result in ineffective cardiopulmonary resuscitation (CPR) with failure to restore life. This knowledge imposes immense responsibility, which may in itself cause stress, but there may be additional factors that contribute. The Royal College of Physicians has stated that advanced life support (ALS) should be taught in the undergraduate course.³ In addition the General Medical Council has advised basic resuscitation training in preparation for preregistration house officer posts.⁴ However a recent survey found only three medical schools made completion of an ALS course compulsory and in the remaining medical schools there was wide variation in the training offered.⁵ Being ill prepared to participate in a cardiac arrest team might cause stress. Attending inappropriate cardiac arrest calls and communicating with very ill patients and their relatives may also be stressful.

The potential stressful effect of CPR on hospital doctors has not previously been established.

METHODS

We undertook a qualitative questionnaire study to determine the following:

- Do junior doctors feel stress from CPR and if so what causes stress?
- Do junior doctors consider some cardiac arrests as being inappropriate?
- Have junior doctors had ALS training?

- Do junior doctors feel competent at performing CPR?
- Do junior doctors find it difficult to discuss CPR with patients and their relatives?

A questionnaire initially piloted within the hospital (available from the authors) was sent to all 52 junior doctors in medicine who participated in the cardiac arrest team in a district general hospital; 41 questionnaires were returned including 22 junior house officers, 12 senior house officers, and seven specialist registrars. The questionnaire was anonymous so non-responders could not be recontacted. The questionnaire was a mixture of closed question/multiple response type questions as well as open ended questions. The closed question/multiple response type of questions were developed after the initial pilot was analysed and common areas of stress identified by the junior doctors in post when the pilot was carried out.

The data collected were placed on a statistical package (Arcus) on computer. Frequency of responses were calculated for each response.

RESULTS

Do you find attending cardiac arrests stressful?

Most doctors (73%) found CPR stressful (fig 1). The most common reasons for stress were poor outcome and perceived in appropriate CPR (fig 2). Having experienced stress after CPR most doctors talked to a colleague, family, and nursing staff but 17% did not talk to anyone. Seventy per cent felt a debriefing session should occur after a cardiac arrest, although 88% reported not having this opportunity. Seventy six per cent of respondents felt that the failure rate has had an adverse effect on their perception of CPR.

Abbreviations: ALS, advanced life support; CPR, cardiopulmonary resuscitation

Figure 1 Stress rating in junior doctors performing CPR.

Figure 2 Reason for stress in junior doctors performing CPR.

Do you think that some cardiac arrests are inappropriate?

Fifty four per cent of respondents felt the number of inappropriate cardiac arrests had increased in the last six months. The main reason given (48%) as to why there had been an increase was failure of senior staff to make "do not resuscitate" orders; 97% felt some CPR to be inappropriate.

Have you done an ALS course?

Altogether 49% of respondents had not done an ALS course and of these most respondents reported they would like to do so. However, 24% of respondents reported difficulty getting on to an ALS course and 10% felt that not having done an ALS course caused stress.

Do you feel competent at performing CPR?

Seventy six per cent (fig 3) of respondents felt competent at performing CPR, one was not sure, and 22% felt incompetent; none of the perceived incompetent group had had undergone ALS course training. Ninety per cent of respondents felt that recent media publicity had had an effect on CPR decision making and 70% that it had not been beneficial in terms of outcome.

Do you find it difficult to discuss CPR with patients/family/senior colleagues?

Fifty eight per cent of respondents found it difficult to discuss CPR with patients, while 46% found it difficult to discuss CPR with a patient's family. None of the respondents would find it difficult to discuss CPR with senior colleagues and most (85%), if they had a query about a CPR decision made by a senior colleague, would query it with that senior colleague (fig 4).

DISCUSSION

Most doctors (73%) in this study admitted to feeling stress from CPR. The reasons are multifactorial. While little can be done about the procedure itself, ensuring adequate review by

Figure 3 Junior doctors' feelings of competence in performing CPR.

Figure 4 Junior doctors' difficulty in discussing CPR.

senior doctors with encouragement to document do not resuscitate orders where appropriate, after discussion with patients, might be beneficial as the main reasons given for stress was inappropriate CPR (29%) followed by poor outcome (32%).

Fifty four per cent of junior doctors felt the number of CPRs that were inappropriate had increased in the last six months and 48% attributed this to failure of senior staff to make do not resuscitate orders. CPR is not a panacea for death and all doctors are aware that in some circumstances, no matter what treatment is given, the outcome is going to be the same.

Performing futile CPR on a patient who is clearly not going to benefit may be traumatic for the junior doctor involved, causing stress as well as being degrading to the dying patient.

Recent media interest in CPR and do not resuscitate orders may well have had an adverse effect on senior doctors' decisions, and they may be wary of making a do not resuscitate order even if they know CPR to be futile. However, avoiding decisions is not the solution. If a treatment is not going to work then there is no point giving it. Explanations to patient and family (if appropriate) should be given as to why CPR is inappropriate. The public may require information which clarifies that CPR is not always an appropriate and effective treatment for all patients.

Previous studies have shown that the survival rate after CPR at one year is 14%⁶ and 17%⁷ respectively. If, however, patients are receiving inappropriate futile CPR, survival rates are likely to be much lower. In this study, not only did junior doctors report experiencing stress from poor outcome, but 76% felt the failure rate had had an adverse effect on their perception of CPR.

Studies have shown that resuscitation skills are often poor.^{6,8} If doctors do not have adequate training with regular updating, it is hardly surprising that techniques may be inadequate. In this study, 49% of junior doctors participating in the arrest team had not had ALS training even though most would like to do so, and indeed some 10% felt lack of ALS training caused stress. Research evidence shows that patient outcome is superior if performed by ALS trained personnel,⁹ and so the figure of 49% who are not trained is alarmingly high.

Key points

- Most junior doctors find CPR stressful.
- Most junior doctors think some cardiac arrests are inappropriate.
- Some junior doctors find it difficult to discuss CPR with patients and/or their relatives.

Providing resources to ensure all members of the arrest team have ALS training before participating should be a priority, not only in reducing stress for junior doctors, but also in providing improved care for patients. Hospitals, including our own, have in-house training in CPR but this is not equivalent to an ALS course. ALS training as a fifth year medical student would be a practical solution.

In this study, 88% of junior doctors reported not having a debriefing session after CPR. It is regrettable that debriefing does not routinely occur since this is an opportunity for emotional support as well as non-judgmental feedback. In any other profession concern would be raised at the possibility of post-traumatic stress and there would be adequate provision for counselling. CPR provides educational opportunities not just from the debriefing itself but also from the opportunity for personal reflection¹⁰ which can take place after appropriate debriefing. Time for debriefing might also allow for anonymous critical event audit as part of support and clinical governance.

Ideally, communication with patients should be done with senior doctors,¹¹ but in the acute situation, junior doctors resident on-call may be the source for this communication. In this study 58% of junior doctors found it difficult to discuss CPR with patients and 46% found it difficult to discuss CPR with relatives. Since some of them find it difficult to communicate, further stress is likely. Failure to discuss CPR with patients and families may result in futile CPR being performed, increasing stress in the doctors.

Every effort should be made to support doctors who make up a cardiac arrest team. We need to move away from the attitude that doctors have no need of either emotional support or

formal training. Members of the cardiac arrest team are human beings who may feel stress for a number of reasons. While nothing can be done about the procedure itself, adequate training in ALS and communication skills, making time for debriefing and support need to be reviewed since improvement in these areas may reduce stress in junior doctors and potentially improve patient care.

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