

Clinical Human Factors Group
3rd Workstream
Human Factors Training
Summary of Meeting 24th April 2008
Royal College of Anaesthetists, London

Present

Nikki Maran (Chair), Hugh Rodgers, Trevor Dale, Dianne Ballance, Nicky (HIII), Chris Frerk, Bryn Baxendale, Andy Norris, Paul Stewart, Paul Alsop, John Renard, Lydia Munro, Jan Shaw

Apologies

Martin Bromiley, Rick Johnson, Sue Mellor, Peter McCulloch, Beverly Norris, Chris Sadler, Carey Edwards

Background

The members of the clinical human factors group come from a variety of backgrounds from human factors experts to but many have a strong interest or experience in human factors training. Many have pioneered Human Factors Training in different guises within the NHS. As patient safety makes its way up the political agenda, it is clear that training must take a part in raising the profile of human factors in the health service. At the last meeting of the CHFG, it was agreed that a working group should be set up to consider HF training as it should apply to the health service. The view of the group was that this subgroup should be chaired by a clinician and, at Martin's request, I agreed to take on this role.

The first meeting of the group was organised for Thursday 24th April and was well attended. Unfortunately, the date of the meeting clashed with the patient safety meeting in Paris which some members of the group were already committed to attending. Martin was amongst those who were unable to attend, however he sent a message which summarised the importance of the task.

“This Workstream, although the "3rd" is perhaps the real starting point of the CHFG. If you look back at the history of CRM and HF in aviation, it was when people started to discuss "what needed to be included in training" that the topic took on a real importance. It was at this stage that the question "what should frontline staff know" was properly answered.

You may ask what remit we have to look at "HF" training in healthcare. We don't. But if we don't do it now one of two things will happen, either "the establishment" will set up a programme to do it at vast expense and time (probably not involving the most important people in the field, i.e. you), or more likely no one will do it. Either way progress will be very slow, and "HF" will continue to be just another minor side show in patient safety, not the core science that it really is. This is our best chance.”

The experience of the group who attended the meeting is very varied. Some have brought expertise from working in other high reliability domains, most notably aviation and have experience of adapting this training to the health service. Others have come from a clinical background and have developed Human Factors training from first

principles for health care. The National Association of Medical Simulators (NAMS) represents the medical simulation centres in the UK all of whom incorporate some aspects of human factors into their simulator training. Some are involved in other aspects of training, particularly airway training in the UK and see the need to incorporate human factors into current technical aspects of airway management. It is fair to say that all have been influenced in their current experience (to a greater or lesser extent) by HF training in aviation. Clearly this shared expertise is a massive asset.

Remit

The remit of the first meeting was to

- review what HF training is currently offered within the NHS
- consider what seem to have been the successes and challenges of such training
- review the evidence that such training is effective in the healthcare domain
- consider whether the group could / should take a role in defining what human factors training for healthcare should look like
- consider whether the group could / should take a role in recommending how HF training should be applied in the health service
- consider whether the group could / should take a role in approving or accrediting such training in the future.

What HF training is currently available?

The group present shared their experiences of training which range from little or no experience to groups who are involved in delivering regular training within their hospitals and those who have provided external training in both a 'routine' and a 'troubleshooting' capacity. Although it was felt that most of the better-known training providers are represented in the CHFG, we should consider if any other individuals or groups are missing. It would clearly be attractive to have a more complete picture of where HF training is being delivered and we may consider this as a piece of work. NHSI may have some information on this.

ACTION ALL – please let NM know of any training providers who are known to be working in the NHS but not currently involved in the group.

Experiences of HF training in healthcare

The early part of the meeting was spent sharing experiences of the successes and challenges of applying HF training in healthcare. Emerging themes from this discussion included

Successes

- Those who have been involved in training on a large scale within a hospital reported that **training large numbers can achieving demonstrable behavioural change** through ‘infecting/ infiltration of the masses’
- **Multiprofessional training** is found to be well received and was overwhelmingly felt to be desirable but ‘buy in’ from the medical staff is felt to be crucial
- **Buy-in from hospital leaders** is also felt to be crucial but the need for those leaders to support the change in culture throughout a hospital as well as just support for the implementation of training was emphasised.
- It was generally agreed that training seemed to be better accepted where **course content was tailored to clinical context** and that if training is too ‘generic’, some will have difficulty ‘translating’ lessons learned into something that fits into their own practice. It is generally found that illustrations of concepts using ‘cases’ or ‘stories’ both from within and outwith medicine is most useful.
- The need for good **interactive teaching materials** was emphasised
- Paul S emphasised the importance of establishing **clear learning outcomes**. In this way, participants leave the training with something tangible that they could either DO or SEE in their own practice. This was also thought to be an important aspect of getting buy-in from senior (medical) staff, for making sure that skills taught on courses were then modelled in clinical practice. Tangible outcomes are also vital if we want to measure a change in behaviour to demonstrate that learning has taken place.
- It was agreed that simulation was valuable in that it offers learners the benefit of **observation and reflection on their own behaviour**.
- The benefits of a **multi-level training intervention** such as that which John hopes to provide in Oxford with awareness raising at early stages followed up with regular refresher training and building on skills in specialty training was agreed.

Challenges

- Establishing ongoing **funding** for courses is a universal challenge.
- **Time** for release of staff for training (including trainers if ‘in house’)
- Getting **‘buy-in’ from senior (medical) staff** was seen as key to achieving change (as above) but is a real challenge – especially for the group most in need of training!

- **Buy in from hospital leaders** is essential and the fact that good work of HF training can be undone very quickly by leaders acting in ways that undermine training was illustrated (by Jan).
- **Recognising limitations of teaching materials and methods** was highlighted. An example was given by the Burton group who had previously used 'dissection' of real incidents as a teaching tool but have found that it is easy for individuals to disengage from behaviours which are known in retrospect to have led to adverse outcome.
- **Maintaining high levels of staff training** (see successes above) is challenging with high staff turnover in most organisations.

Evidence of training effectiveness.

There is little current evidence that HF training has been shown to have an effect in healthcare (or indeed in any domain). The views of many in the group on this subject have been aired in recent e-mail correspondence between CHFG members! This is clearly an area on which we will have to agree to differ in the meantime! What is clear is that if we are to recommend more widespread application of HF training in the health service, we should be looking for some evidence that this is making a difference. Paul argued that at an individual level, 'evidence' of usefulness of training was in usefulness of the take home skills such as being able to identify areas of risk that they would not have seen before. This debate underlines the importance of identifying clear learning objectives and outcomes when designing & delivering training and the need to train large numbers in an organisation to achieve visible cultural / behavioural change.

*Note from CAP737 Chapter 5

To maintain the integrity of the training process, training methods should be focused on objectives; rather than be activity driven, which tends to encourage a 'tick in the box' mentality. The objectives would be to ensure that participants develop the right knowledge, skills and attitudes. Whereas hitherto in the airline and other industries, training programmes have been constructed and assessed largely on the basis of their content, the more recent tendency is to assess programmes on the basis of the trainee outcomes they purport to achieve and the procedures they have in place to assess these outcomes.

5.2 This trend focuses the effort and investment in training on objectives which are defined in terms of measurable outcomes. It does not by any means render content obsolete, but recognises that content is only the means, not the end in itself, of training and education.

Could / should the group take a role in defining what human factors training for healthcare should look like?

Those present agreed that this was a role that they felt both 'qualified' and also motivated to take on. All parties who had given apologies to this meeting via Nikki Maran had also been supportive of this role. In keeping with Martin's sentiments, it was thought that if we did not take this on, it was likely to be done in the future by other parties who may have less expertise in the arena.

There was much discussion around the form that this exercise should take. Some current training providers have concerns around the sharing of what they considered to be intellectual property. It was agreed that what the group would attempt to do was to outline the syllabus or curriculum – the WHAT of the content of a course rather than the methodology used for the training delivery – the HOW which could be considered the intellectual property.

The group began to describe the outline of what they would expect to hear on a human factors course. (APPENDIX 1) It was agreed that further work would be required to build in this outline. In the first instance Nikki will share note of the meeting and then we should start a discussion panel which might be achieved through the CHFG website.

ACTION NIKKI to contact Martin RE setting up of discussion panel via website

Could / should the group take a role in recommending how HF training should be applied in the health service?

This was touched on only briefly. It is felt likely that this is a role that the group could adopt but that this will become clearer after the 'content' exercise is underway.

ACTION to be revisited at future meetings

Could / should the group take a role in approving or accrediting such training in the future?

This was not formally discussed at the meeting although it is clear from informal approaches to the chair that there may be polarised views on this subject.

ACTION to be revisited at future meetings

SUMMARY & REFLECTIONS

We have within the CHFG, many members with both expertise and the willingness to define a human factors curriculum for healthcare for the UK. There is a lot of resource available to us as we undertake this task. There are many documents from aviation for example CAP737, CAP 719 and one of the first things I am currently aware that some other groups are working on some aspects of this, in particular, the University of Sydney have a grant from the WHO to define a curriculum for patient safety for the

medical undergraduates and the Royal College of Surgeons of Edinburgh are currently working on a patient safety curriculum for surgeons in training and have applied for a grant from the Academy of Medical Colleges to extend this project to cover postgraduate curricula for all medical specialties.