Could the NHS take the same approach towards Human Factors & Behaviour Change as the Airline industry?

According to Martin Bromiley, the founder and director of the Clinical Human Factors Group, the NHS is starting to recognise the value of addressing “human factors” to improve safety, but progress is not happening quickly enough and valuable lessons could be learnt from the airline industry.

Martin set up the Clinical Human Factors Group following the death of his wife. She had gone into hospital for a routine sinus operation in 2007, but died 13-days later following complications during the operation. The inquest revealed a series of “human factors” or failings in “non-technical skills” were responsible, despite the medical team having many years’ experience between them.

What has this to do with the airline industry? Well Martin is an airline pilot and knows that human factors are the cause of 75% of all aviation accidents.

His experience working in the aviation industry and how it deals with human factors in relation to attitude and procedures, led him to set up the Clinical Human Factors Group to help transfer some of this learning to the NHS. Whilst the airline industry knows that human error is the cause of the majority of airline accidents, in the medical profession this is not quantified.

It’s only recently that the NHS is starting to look at human factors as a way of improving standards. According to the Royal College of Nursing “human factors’ refers to a theory of
the relationship between human behaviour, system design and safety that is becoming increasingly influential in helping us understand the causation of errors, accidents and failures in health care systems.

An understanding of the core elements of human factors theory will enable you to improve the safety and effectiveness of your own practice.

Martin highlighted four key attributes of the aviation industry which could offer the NHS food for thought. The first is that safety is a pilot’s priority. He points out that in theory the same should be said about the NHS, however, he is often told that medical professionals have a lot of competing priorities such as targets and budgets, to which he says that pilots have the same priorities. However, if there is ever a conflict between target and safety, safety is always the priority for pilots.

Secondly, all major aviation incidents and accidents are investigated by external whose only brief is to learn what happened and disseminate learning. The focus is not on blame – this is left for the judicial system or airline disciplinary process once the investigation is complete. UK airlines have a policy of immunity from disciplinary action in the event of inadvertent human error freely reported – a policy that puts learning about safety first.

Thirdly, he says from the mid-1940s onwards the aviation industry started to understand there were enormous benefits from designing aeroplanes around the needs of humans. However, by the 1970s it became obvious that safety improvements gained through design and technology were no longer reducing accident rates and a giant leap could only be made if we could understand that 75% of accidents are caused by “human factors”.

The fourth thing he highlights is that all pilots, air traffic controllers, cabin crew and engineers have to understand human factors as part of their training. They have been re-skilled, to understand threats to safety, ways to avoid, trap and mitigate error, the skills involved in teamwork, and communication and leadership in a safety critical industry.

So what can the NHS learn from the aviation industry? Mirroring the industry’s transparent approach to investigating accidents, discussing human factors and learning from mistakes rather than looking at blame could go a long way toward changing the culture of the NHS and ensuring patient safety comes first.

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