Time is right for Human Factors in Healthcare

Once a year New Zealand’s healthcare professionals get an opportunity to reflect on the impact that human error has on patients nationwide. This period corresponds with the release of the annual report on serious and sentinel events by the Health Quality & Safety Commission, which sometimes occurs at the end of the year, \(^1\) sometimes at the beginning of the new year. \(^2\)

Last year was somewhat exceptional in that there was a lot of information reflecting on the contemporary status of New Zealand’s healthcare system. For example, in April news outlets reported that New Zealand ranked among the six worst industrialised nations in regards to healthcare preventable deaths, \(^3\) and a couple of New Zealand Medical Journal’s (\textit{NZMJ}) articles highlighted, among other things, that 14% of surgeons were resistant to use procedures for preventing wrong site operations, \(^4\) and that New Zealand’s healthcare should move towards a more public and transparent reporting system. \(^5\) In fact, such information trend seems to be continuing into 2013, with a January \textit{NZMJ} publication signalling that about 30% of patients may be suffering from medication-related harm in our District Health Boards yearly. \(^6\)

This letter wants to contribute to the topic by reflecting on my own recent experience with healthcare Human Factors and medical error.

Back in 2011 I was invited to address healthcare professionals on Human Factors, at Tairawhiti District Health and Gisborne Hospital. In preparing for the occasion I discovered with certain dismay that Human Factors is not part of the training curriculum of nurses at Massey University nor could I identify any particular course which could do a similar thing for other health professionals at the University of Otago. The question is, should it be?

Here is where my recent experience comes in. My wife delivered a baby not long ago at MidCentral Health Palmerston North Hospital. During the long labour, her midwife eventually had to get something to eat. While she was gone, my wife needed a new saline drip as well as to go to the toilet, so we called for assistance. The nurse who attended the call (perhaps a nurse student, or was she a fully trained midwife?) was with us for barely a few minutes and still managed to commit four errors in such short period of time.

Firstly, she tried to turn off the electronic fetal monitoring machine but was confused, being perhaps unfamiliar with it, and rather than turning it off she lowered the sound output to a barely audible level; she eventually found the off function, though.

Secondly, after removing the transducers from my wife’s belly, she proceeded to disconnect the empty saline drip rather than simply let my wife go to the toilet, considering that she would be taking her I.V. stand with her anyway. However, she did not follow the connecting tube from the saline bag to the cannula, as expected, and ended up disconnecting the oxytocin drip instead; upon realising her mistake, she quickly reconnected the oxytocin tube and pulled the saline tube.
Thirdly, once my wife was back from the toilet and into her bed and reconnected to the machine, the nurse left with the empty saline drip never to come back with a replacement. About 10 minutes later, when the midwife returned, she discovered the last error: that the nurse did not actually disconnect the saline drip properly but simply pulled the tube from the cannula leaving the back stop valve opened.

Those were not the only mistakes happening that day, though, as the midwife also made two mistakes during the long waiting period. At one time she changed the saline drip but forgot to open the valve at the chamber to restore the flow, until queried about it. At another time she changed the oxytocin drip and forgot to re-start the flow until the machine sounded the corresponding alarm.

There are no hard feelings about this experience, though: human error is a commonplace occurrence, not less so in healthcare. What is appalling is that so many mistakes happened in such short period of time doing tasks that were routine, as the errors that occurred could have been prevented easily—for example, with a bit more of awareness about the chances of error occurrence and better procedures.

What I think most appalling is that Human Factors is not taught as part of the training curriculum of healthcare professionals, so that errors as those exemplified above are timely captured or prevented altogether.

I didn’t observe any mistakes in the operating theatre, and we left with a healthy baby on Christmas Day. But I was worried all the time I was there. I now wonder if the time is due for Human Factors to find its rightly place in New Zealand’s healthcare curriculum and practice.

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References: