Does applying Training Within Industry (TWI) help in the English NHS?

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WHAT ARE WE TRYING TO ACCOMPLISH?

Background

Northampton General Hospital (NGH) is a mid-sized English NHS Trust. We have a strong quality improvement (QI) ethos, particularly the Junior Doctor Patient Safety Board.

While an understanding of quality improvement (QI) methods are spreading in healthcare, often the effects of QI projects are not sustained and safe practice (such as hand hygiene) is not performed universally in a standard fashion. In addition, commonly doctors and nurses are the focus of QI instruction, rather than other frontline staff such as healthcare assistants (HCAs). In reviewing our previous QI projects, we found inconsistencies of implementation and variability in practice. Nurses and HCAs saw these, but were unsure how to respond.

Intervention

Reading the history of kaizen (continuous improvement), we found references to “Training Within Industry” (TWI), an American World War II programme that was the origin of the Toyota Production System, and which was used in the English NHS in 1949-50.

TWI has been reintroduced to healthcare at Virginia Mason Hospital, with benefit in standardising practice. We invited a TWI trainer to run a Job Instruction (JI) course, to teach staff how to analyse and instruct common practical skills: one to one, teaching important steps and key points.

HOW WILL WE KNOW A CHANGE IS AN IMPROVEMENT?

HAND HYGIENE

Adherence to the training breakdown

PRESCRIBING

Confidence in prescribing

Customer Measure: Feedback on quality and usefulness of teaching.

The one-to-one tutoring was excellent, I was able to ask questions.

WHAT CHANGE CAN WE MAKE THAT WILL RESULT IN AN IMPROVEMENT?

CYCLE 1

Strategy for change:

First JI course (March 2016) on our ‘test’ ward, using hand hygiene and prescription writing as practice jobs.

Effects of changes:

Due to the busyens of the hospital and the junior doctor strike, we had fewer than half of the intended staff attending the February 2016 course, no nurses from the ward, but two HCAs. We began hand hygiene instruction, but this was curtailed due to a ward move and staff sickness.

Nevertheless, four months later and without further instruction, staff were still able to remember 15 out of 16 key points.

The training was well received for usefulness (8.8/10) and improvement in confidence (5.5 to 8.1/10). There was no relationship between these and score in the UK Prescribing Safety Assessment. Follow up audit 6 months later showed no improvement.

CYCLE 2

Strategy for change:

Second JI course (October 2016) on another ward, attended by a junior sister, staff nurse, infection control nurse and two HCAs, with hand hygiene and pressure area care as practice jobs.

Effects of changes:

We have begun to use the JI breakdown for teaching hand hygiene to HCAs. The HCAs rated their training as 9/10 (range 8.5-10) for quality and 9/10 (range 8-10) for usefulness. We taught fifteen staff one-to-one as they were available over two weeks. We found that HCAs remember the key points over time as taught in the instruction session.

DISCUSSION AND CONCLUSION

Lessons learned:

We learned that there is no good time to begin an improvement project, but that external factors such as staff morale, staff sickness or system restructuring can affect the impact of a QI project. The involvement of senior ward staff both in the planning and delivery of QI training is essential for maximal effectiveness.

TWI-Job Instruction is an effective way of teaching skills for the common practical tasks. However, frequent rapid follow-up helps the training stick. We did not do this with prescribing training and it had little effect. We have included follow-up into hand hygiene training and this has worked well. One unexpected positive benefit has been to give the HCAs a sense of purpose and community – looking out for each other and being observers to ensure all staff perform correct hand hygiene.

Messages for others

We have found that breaking down a job can be an effective of instructing as a baseline for improvement, but that other people-related aspects can undermine a project. TWI’s three-legged stool of instruction, leadership and improvement may be able to help again to improve safety. Work out the follow-up schedule in the planning phase because this is critical to success.

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