

Project Title

Evaluating the usefulness of E-learning in the Water Swallow Test Train-the-Trainer Programme

Organisation(s) Involved

Tan Tock Seng Hospital

Project Period

Start date: Jan 2016

Completed date: Apr 2018

Aims

This study aims to evaluate whether the use of e-learning improves nurses' competency in administering the water swallow test accurately.

Background

The water swallow test is a widely used tool to screen for dysphagia, administered by doctors or nurses. Traditionally, nurses have been certified to perform the Water Swallow Test (WST) by Speech Therapists (STs) on a one-to-one basis. This has resulted in reduced efficiency, with nurses not being able to be certified quick enough to meet the demands in the wards. There was also no standardized method to train the nurses, resulting in variation in training styles and competency standards between trainers.

Methods

The WST Train-the-Trainer Programme was developed to standardize the method and increase the efficiency of certification of nurses in conducting the water swallow test for patients. Under this programme, the ST no longer spends time training individual nurses to be Providers of the WST. Instead, time and efforts are dedicated to training up a few competent Trainers of the WST in the wards. These Trainers who are also experienced nurses in the wards will go on to train up other nurses to be competent in performing the WST in the future.

An e-learning module was created as part of the theory component of the training programme. This was a shift from the traditional method whereby the Speech Therapist conducts a classroom teaching session with the trainees. Under the new model, the learner is able to acquire the theoretical knowledge through self-learning from the e-learning module. Learners were allowed to access the material at their own time and take in the information at their own pace. As such, the teaching is standardised and automated, while more of the contact time between the trainer and trainee is dedicated to the practical and most important aspect of conducting the WST itself.

In our study, 48 nurses from the Neurological Intensive Care Unit were recruited. The traditional group (n=22) attended an hour-long theory lesson by ST. The new group (n=16) completed an e-learning course. All nurses undertook a practical assessment with ST to certify their competency in performing the water swallow test post-training. The two groups were compared in terms of number of practices required to pass the assessment. Nurses from the new group also provided feedback on the e-learning course, consisting of 10 questions with 5-point Likert scale and 2 open ended questions.

Results

86% from the traditional group passed the assessment within 3 sessions, compared to 56% in the new group. The new group required more practices to pass the assessment.

Most learners found the e-learning course easy to understand (87.5%) and easily accessible (81.2%). However, a significant portion (37.5%) were not confident to perform the water swallow test independently.

Notable feedback for the course include:

- (i) Lack of demonstration of procedure
- (ii) No opportunity to clarify questions.

Lessons Learnt

Key lessons learnt/ challenges experienced specific to this project, tips/ pointers for others who wish to embark on a similar project.

Conclusion

While e-learning allows for flexibility of learning pace, it is not superior over instructor-led lectures in determining the nurses' skill competency in performing the water swallow test independently and accurately. The content and delivery of the course material is key to address knowledge gaps and cater to learning needs.

Project Category

New Pedagogy, Process Improvement

Keywords

New Pedagogies, Process Improvement, Efficient & Standardized Training, Education, Water Swallow Test, E-learning, Dysphagia Screening, Train-the-Trainer Programme, Self-learning, Standardised and Automated Teaching, Neurological Intensive Care Unit, Tan Tock Seng, TTSH, Allied Health, Speech Therapy

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