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Challenges of Healthcare Education

Educators in all settings of healthcare face common challenges, including staff engagement, knowledge retention, perceived value, and budget constraints. Educators are often tasked with education surrounding implementation of new technologies with associated procedures and protocols. They are forced to employ inefficient means of providing the education necessary to increase knowledge and proficiency in their staff.

Traditional vs. Innovative

Traditional methods of education employed by nurse educators include lectures, huddle messages, printed resources, skills demonstrations, in-services, in-person classes, conferences, and skills fairs. However, these methods are limited by staff attendance and budget, not to mention are time consuming for the educator. Additionally, ensuring printed resources are updated adds an additional layer of complexity to the role of the educator to ensure version control.

Innovative methods of delivering education in healthcare settings have lagged behind the technology that most of us are accustomed to using in everyday life. Gamification has proven valuable to engage staff in microlearning and bundled intervention to decrease hospital acquired infections (Orwoll, et al., 2017).

Could employing gamification within a microlearning web-application prove more efficient than traditional methods for a nurse educator when introducing new patient care technology?

Opportunity for Comparison of Nurse Educator Efficiency

Introduction of new technology and associated procedures for use in a select population of neonatal intensive care unit patients provided an opportunity to compare nurse educator efficiency using traditional education methods versus a microlearning platform with gamification.

Additionally, staff participation in both methods was measured to compare effectiveness.

Traditional Methods

Traditional education methods included the following:

- Lecture at annual update class (voluntary attendance)
- Pre-Shift Huddle Topic (mandatory prior to starting shift)
- Creation of a quick reference guide
- In Situ In-Services by educator

Innovative Methods

Innovative education methods included the following:

- Cloud based web application (Elemeno Health, Oakland, CA) that employs microlearning and gamification to deliver on-demand education and consolidation of resources for patient care providers and is accessible on mobile and web platforms..
- Challenge (included pre-test, resource view, and post-test) was created and assigned to staff divided into teams to encourage engagement and viewing of the learning resource (voluntary).

Outcomes

Efficiency of both methods is measured in minutes required to create and deploy the education. Effectiveness is measured in staff participation in both educational methods.

Nurse Educator Efficiency

Innovative methods using a cloud-based microlearning application required significantly less time to create and implement when compared to traditional methods.

Staff Participation

Traditional education methods delivered in a variety of settings and vehicles were viewed significantly less than the innovative cloud-based microlearning application.

Discussion

Traditional methods of education are laborious to create and deliver, requiring significant resource dedication from the nurse educator. In addition, the nurse educator is often responsible for coordination and preparation of in-person educational events, the time for which was not included in this comparison. Staff participation was measured by attendance only, not removing repeats to more accurately compare to views of the cloud-based application resource. Creation of a challenge using the cloud-based application didn't prove to engage staff initially, however the resource remained available, which the staff continued to access, accounting for the significant difference in participation when compared to traditional methods of education. Time proved to limit the effectiveness of the traditional methods of education, as this collateral was only available within a prescribed window, not on an ongoing on-demand basis.

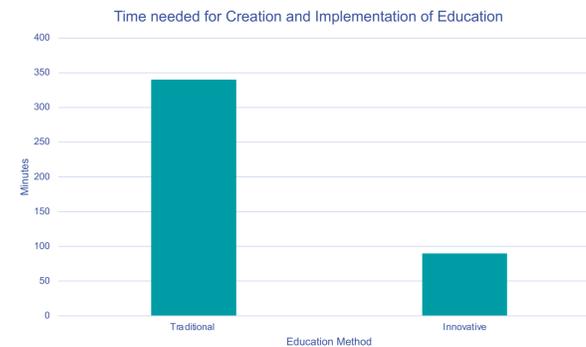
Innovative methods of education proved not only to be more efficient for the nurse educator, but on-demand availability of the resource allowed the staff unlimited Just-in-Time access at the point of care and beyond.

Implications for Nursing Practice

The cloud-based microlearning web-application proved to be valuable in this introduction of new patient care technology, requiring significantly less time from the nurse educator while still engaging staff. Incidentally, the COVID-19 pandemic was the impetus to pivot to utilizing this powerful tool. Information was changing rapidly, and it was difficult for staff to remain current. To mitigate staff stress and to increase knowledge of guidelines real time updates were deployed using the cloud-based microlearning application. These regular updates were concise, up to date, and easy to access in or out of the workplace. Additionally, the mandatory annual NICU Skills Class was modified to reduce the risk of viral transmission. Educational resources were assigned to the nurses to be completed online prior to the live class, thereby minimizing the in-person class time and class size. As a result, views on the cloud-based application increased 600%, revealing the utility of the ease of access, the on-demand availability of essential information, and the desire for front line staff to be well informed in order to perform quality patient care.

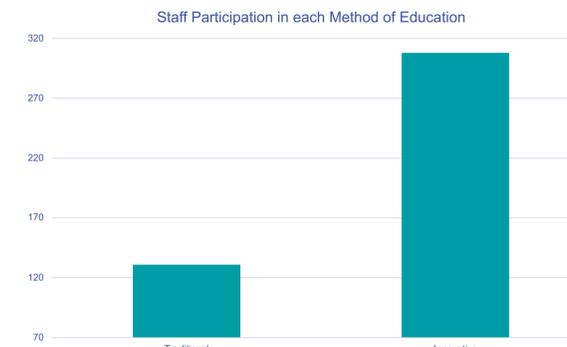
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Traditional vs. Innovative Education Efficiency and Effectiveness



Efficiency

Comparison of time required to create and implement educational elements related to Traditional and Innovative methods



Effectiveness

Staff participation in Traditional vs. Innovative methods of education