Is Education Enough?

Education is a necessary component of every clinicians' training and provides each with the knowledge they need to perform their jobs. However, education is considered one of the least effective approaches to improve patient safety and reduce risk. Quality improvement and risk management strategies that are the most effective are those that prevent practitioners from making mistakes. Education, when used alone, cannot accomplish this goal for the following reasons:

- Education relies on human memory and does not guarantee that the information has been learned, will be applied correctly or lead to the desired skills. Several factors impact the educational process:
    - Inattention inhibits learning
    - Individuals have different learning styles
    - Knowledge and skills diminish or are forgotten over time, particularly if not utilized
    - New information may conflict with prior knowledge
    - Lack of memory cues to retrieve information
- Education does not reduce human errors caused by forgetfulness, preoccupation, distractibility or transposing numbers unless a knowledge deficit is uncovered. Examples of system designs that were developed to prevent these types of errors include drug name searches in automated drug cabinets that avoid look-alike product names in drop-down menus or prompts that require the clinician to check patient allergies or expiration dates.
- Education will not alter habits or unsafe practices. Risky behaviors are developed when clinicians attempt to work around system failures and are typically not associated with a knowledge deficit, but instead an inability to recognize risk associated with the action. Systems should be designed to reward good habits and behaviors.
- Education attempts to change human reliability but does not change system reliability. It is virtually impossible to make humans reliable all of the time.
- Education requires recurrent repetition due to staff turnover and student rotations.

Education, used alone, is a weak strategy to improve the quality of patient care. Several high-level risk-reduction strategies that enhance system reliability must be combined with education to increase safety and decrease errors.

Reference

1. Institute for Safe Medication Practices. (2020). *Nurse Advise-ERR.* Retrieved from Institute for Safe Medication Practices: https://www.ismp.org/nursing/medication-safety-alert-july-2020