Solution: Achieving Patient Safety: Engaging Staff Through Teaching Technology

Organization: Kernan Hospital

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IDENTIFICATION:
The multigenerational, multicultural work force demands new and innovative approaches to accommodate diverse learning needs and styles. The ability to deliver stimulating and engaging programming is essential to engaging staff, changing behavior, and achieving performance improvement, with subsequent improvements to patient safety and satisfaction.

Recent literature demonstrates the link between an engaged staff (vs. a happy, or satisfied staff), and the organization’s ability to achieve its mission, vision, and values, central to which is patient safety.

The challenge confronted by Kernan Hospital was how to further the engagement of our multigenerational, multicultural work force in our collective goal: improve patient safety across the organization.

PROCESS:
The staff of the Professional Development Department convened to review and identify options. A vast array of technology, much of it relatively inexpensive is available, and well suited for integration into staff development programs and activities. Changing the learning environment with the goal of increased student involvement results in increased critical thinking ability and learner satisfaction. The ability of the educator to not only assess learning needs and styles, but also the ability to match those needs and styles to the appropriate technological methodology is crucial. Application of varying technologies can be combined to accommodate different learning styles and facilitate the learning for each one. Benefits of multimedia include reduction in the cost of teaching & learning, improved learning effectiveness as a result of increased learner motivation, improved retention of learning, interactivity, satisfaction & opportunities for peer and faculty interaction (Gleydura, et al, 1995) (p382).

The shift in educational methodology at our facility has included increased utilization of technology and multimedia approaches. Examples of the technology employed by our department include large format printer, interactive group response system, customized DVD’s, on-line computer based training, and computerized gaming.

Planning: Prior to the development of each educational program, planning is completed to identify the best teaching/learning methodology. Considerations, to name a few include target audience, content, turn around time, presentation time, desired outcomes. Specific planning will occur related to the technology selected. For example, if Group Response Technology will be
utilized, will the participants remain anonymous, or will the program be set up to enable a participant specific print out.

**Research:** Research completed prior to development of the program includes identification of specific content to be presented and development of objectives. This phase may include research in the literature for best practice content, updates to standards, review of TJC FAQs if specific questions relate to implementation, clarification, etc., of NPSG/Standards. This phase also may include research within, involving the constituents to ensure we are on target. Specific examples are sought in an effort to engage staff and drive the message home.

Prior to the purchase of the DVD taping and editing equipment and software, as well as the group response technology research was conducted regarding product purchase, including utility, ease of use, anticipated benefit, cost analysis, etc.

**Development:** Following research, the specific program content is developed. In the case of a DVD, a specific script may be developed (i.e., Mock Code), for a program such as the Life Safety (LS) Code Tour, an outline will be developed, and shared with the primary “actors.” In this type of program, staff are engaged during the LS Tour, responding to questions, participating in tracers, etc.

For the Group Response Technology, a power point program is developed. During the program development a variety of determinations are made, for example the type of question (true/false, etc.), the length of time to respond, the manner in which the data will be displayed, will the data be anonymous.

**Implementation:** These programs are implemented via staff development programming. Due to high demand, we utilize all space available. For example, we have presented the group response technology program developed: TJC Readiness for Therapists in the therapy gym during lunch time. Programs are presented by a minimum of one professional development or quality professional; every effort is made to have the manager participate in the presentation as well.

**SOLUTION:**
The solution included identification of effective teaching/learning strategies; two new technological strategies with the ability to deliver stimulating staff development programming, which is essential to staff engagement, changing behavior, and achieving sustained performance improvement, were identified for implementation.

Facility developed DVDs represent the first new technology utilized. The DVDs are scripted to address specific educational issues and/or target a specific learning community. Next, the activity is taped, and edited. The editing includes text overlays and enhancements. Examples of DVDs developed and utilized at Kernan include: Life Safety Rounds; Joint Commission Patient Tracer Methodology (two DVDs); nursing and therapy; Mock Code DVD developed as a result of quality monitoring, and a patient safety and satisfaction focused DVD.
DVD Technology: Utilization of DVD technology in this way allows the script to be tailored to specific learning needs, and performance improvement initiatives, including patient safety and survey readiness. Staff responds positively to seeing themselves and co-workers in the video. The ability to edit the DVD enables production of a quality product, as well as the ability to insert additional information, graphics, and make changes to the dialog after taping of the program has been completed. Producing multiple copies of the DVD is easy as well.

The second strategy utilized is the application of Group Response Technology. This technology enables the assessment of staff learning, attitudes and beliefs. The technology utilizes a power point enhanced software and credit card size response devices. Participants select responses to the question posed, which are immediately translated into a data display (bar graph, pie chart, etc.) The response device may be set up as anonymous or participant specific. A variety of reports can be printed out at the conclusion of the activity.

Group Response Technology: This technology is new to the market place, as well as use in education and the hospital setting. Staff have viewed the use of this technology on a variety of TV programs (i.e., a contestant asks the audience for help in identification of the correct answer), and are excited to participate. The program is able to collect responses anonymously, everyone has the opportunity to answer, staff are more willing to answer value/belief questions. Responses from each participant are quickly translated into measurable results. For example, we discuss requirements for hand hygiene, then ask: I believe I consistently apply hand hygiene guidelines as required for patient safety and in compliance with the National Patient Safety Goals (NPSGs).

Benefits of the multimedia approach to learning include reduction in the cost of teaching and learning, improved learning effectiveness as a result of increased learner motivation, improved retention of learning, interactivity, satisfaction, and opportunities for peer and faculty interaction.

The variety of approaches to teaching/learning accommodates the diverse learning needs and styles of the multigenerational, multicultural workforce. The use of group response technology enables immediate identification of learning needs, and enables immediate remediation.

The implementation of these two learning methodologies resulted in a significant increase in requests for educational programming, as well as an increase in turnout to, and participation in the programs presented.

Specific results are monitored in a variety of ways. Example: Following presentation of the Mock Code DVD, the mock code section is replayed with a clock inserted into the upper corner of the video. During this “instant replay” the staff document on the Kernan Code Blue documentation form. This enables immediate evaluation regarding comprehensive documentation during an emergency event. Staff are able to receive immediate feedback and ask questions. The documentation of Code Blues is monitored as a component of the event review/performance improvement process. This monitoring indicates effectiveness of the education and additional learning opportunities.
Following the presentation of a program utilizing group response technology, the manager can review reports identifying additional learning needs as well as lack of individual alignment with organizational goals and values. Discussion prompted by responses has resulted in identification of lack of clarity regarding specific policies, need for additional equipment, strategies, education, etc. Monitoring of specific regulatory compliance, for example hand washing has improved, due to the education, as well as discussion and strategies identified during the educational program.