UCF College of Nursing

Community and Public Health Practicum for RNs – NUR4604L

Clinical Practice Project Proposal

Problem Statement

Alarm fatigue has been a growing priority for health care during recent years due to the relationship with patient safety. During April of 2013, the Joint Commission published Medical Device Alarm Safety in Hospitals (Petersen & Costanzo, 2017). The sentinel event alert addressed 98 alarm related events which included 80 deaths, 13 patients who suffered from permanent damage and 5 extended hospital stays, all associated with alarm fatigue (Petersen & Costanzo, 2017). Clinical alarms are vastly utilized throughout the hospital setting, especially in intensive care units. Common clinical alarms can be heard from a variety of devices such as ventilators, intravenous pumps, pulse oximetry, electrocardiographic alarms, sequential compression devices, call bells and fall prevention devices. Even though clinical alarms are supposed alert nurses to changes in patient's physiological status or safety, a study conducted by the American Association of Critical-Care Nurses found that 80 to 99% of electrocardiographic alarms were irrelevant to the patient's status (Petersen &Costanzo, 2017).

With a countless amount of excessive "false" alarms, nurses and other healthcare providers can develop desensitization towards clinical alarms. The result of desensitization can potentially lead to the development of alarm fatigue, which can consequence increase the risk of adverse and sentinel event for patients (Petersen & Costanzo, 2017). At least 1214 alarms sounded during a 200-hour observation, conducted in an intensive care unit, of the 1214 alarms only 23% were relevant clinically (Petersen & Costanzo, 2017). While clinical alarms are necessary for patient care and safety, irrelevant alarm sounds can affect patient's outcomes.

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Project Description

All healthcare providers, in the hospital setting, are susceptible to alarm fatigue. Some providers may already or are currently experiencing this phenomenon. So, what can be done to identify problems and causes of alarm fatigue? Inappropriate monitoring parameters should be identified. Each parameter should be customized based on the patient's situation and status. Changes to monitoring parameters should be discussed with the clinical provider, prior to changing the standard settings on the devices. An estimated 68% of irrelevant alarms have been attributed to incongruous parameters, low specificity and high-sensitivity settings (Petersen & Costanzo, 2017). Another key to reducing alarm fatigue is proper utilization of devices. For example, using disposable finger pulse oximetry sensors appropriately, such as not placing the sensors on the forehead or ear lobes. Another important aspect to alarm fatigue is identification of nurse's awareness about desensitization. This aspect can be identified through simple questions about what does desensitization meant to them, what knowledge do they have about alarm fatigue and ways they try to decrease unnecessary alarms.

The estimated timeline for implementation of the above proposed changes is about two months. Implementation can be completed through presenting the subject matter through a PowerPoint presentation in small groups. The PowerPoint should be directed towards addressing training on monitoring systems and accessories, setting specific patient parameters on alarms, audibility of alarms, identification of the development of alarm fatigue and possible outcomes resulting from alarm fatigue. To monitor the implementation process, a three-part questionnaire will be provided to staff. The

questionnaire will consist of how often they believe irrelevant alarms occur throughout the shift, have they seen a decrease in alarms since the initial implementation of the training and do they believe the process is working. The questionnaire will also contribute to the post-implementation evaluation. The questionnaire will be distributed prior to training, during the middle of implementation and at the end of the proposed project.

Stakeholders

The proposed project appears to address healthcare providers, mainly nurses, as the primary stakeholders. However, the reasoning behind preventing alarm fatigue is truly for patient safety. Therefore, the overall individuals that will benefit from the implementation of the project includes healthcare providers and patients.

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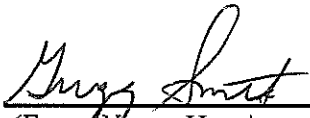   1. Gregory.Smith@orlandohealth.com

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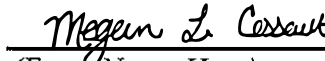
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Signatures indicate approval of the proposal as listed above. Scan the completed & signed document in the Assignments section of the course for faculty approval.

Host Agency Representative   Student

(Enter Name Here)   _(Enter Name Here)_

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Reference

Petersen, E. M., & Costanzo, C. L. (2017). Assessment of clinical alarms influencing

nurses' perceptions of alarm fatigue. *Dimensions of Critical Care Nursing, 36*(1),

36-44. Doi:10.1097/DCC.0000000000000220