**RCA and FMEA**

**The general purpose of conducting root cause analysis**

Root cause analysis (RCA) refers to a systematic process for the identification of the ‘root causes’ of problems and further provide an approach to address those issues. Six basic steps exist that professionals use while conducting an RCA (Rybkowski, 2015). The first step involves the identification of the event that can come from many sources such as an incident report, risk management referral, and health facility citation. The other steps include gathering the information, identification of all issues contributing the problem, determining the root causes, identifying recommendations for mitigating the problems, and implementing the identified solutions (Peerally, Carr, Waring, & Dixon-Woods, 2017).

The problem identified in the scenario is the fact that Mr. B’s condition worsened because of the lack of attention by the nurses in the rural hospital where he was initially placed, which was further orchestrated by the congested hospital schedule. From the information gathered, the issues contributing to the problem include the lack of standby nurses that could monitor the patient’s condition and the congestion of the schedule operated by the staff members on duty that made it hard to cater for the needs of Mr. B.

**Proposed process improvement plan**

The process improvement plan that can help in decreasing the likelihood of a reoccurrence of the scenario include the deployment of standby nurses who can be available for a call-up when the hospital needs extra nurses to handle the shift. One of the issues that led to the problem was the unavailability of nurses on standby to help ease congestion. Therefore, ensuring that there are nurses in place who can chip in and help wherever possible can be a good improvement plan to ensure that there is no reoccurrence of the problem.

Each phase described by Kurt Lewin concerning change theory can apply to the proposed improvement plan. The model proposed by Lewin offers a simple plan using three phases; unfreezing, changing, and refreezing, that can help in understanding the change process (Cummings, Bridgman, & Brown, 2016). Unfreezing phase can apply to the improvement plan proposed in that it will help in sensitizing the workforce of the facility on how the status quo is hindering the organization. The changing phase will assist in the implementation of the proposed plan (Cummings, Bridgman, & Brown, 2016). Finally, the third phase, refreezing, will help in reinforcing the improvement plan and ensuring that it serves its purpose.

**The general purpose of failure, modes, and effects analysis (FMEA) process**

Failure, modes, and effects analysis is a procedural approach that helps in the identification of all possible failures excising in design, service, or product. FMEA process involves seven significant steps that an individual follows for the realization of a practical result (Claxton & Campbell-Allen, 2017). The first step consists of the selection of a process to evaluate with the approach considering that not all methods are appropriate with the technique. The second step involved in the approach is the recruitment of a multidisciplinary team that comprises of individuals that may be included at any stage of the process. The third step involves meeting with the team to underline the various steps in the process, while the fourth step entails requesting the team to list the failure modes and causes (Claxton & Campbell-Allen, 2017). The fifth step is the assignment of numerical values to each failure mode, as evaluating the results acts as the sixth step taken. Finally, the use of RPN for calculating the efforts on plan process improvement is the last step taken and involves the development of an action plan to cater for the different factors depending on the results achieved.

**Ways of testing the intervention from the process improvement plan**

The plan will test the change process by employing the plan, act, study, do (PDSA) approach. The improvement plan will explain the objectives for carrying out the change in the first step dubbed ‘plan' phase. In the second phase, ‘do,' one of the initiatives taken will be the execution of the plan and the identification of the anticipated challenges including their analysis. The ‘study’ phase will also include the analysis of the information gathered to understand the effectiveness of the execution plan. The study phase will also involve the analysis of the potential resistance that might hinder the effective execution of the implementation plan and further identify the key initiatives to employ to address those challenges. Finally, the last step, dubbed ‘act,' will involve the implementation of the planned activities for the improvement of the care. It will also help in the establishment of an adequate review that can play a significant role in ensuring that there is a smooth transition into the implementation of the proposed plan to minimize major risks.

**How professional nurses can competently demonstrate leadership**

**Promoting quality care**

Professional nurses can ensure the promotion of quality care by improving the overall standards of care. Further, contributing to the creation of policies that play a role in ensuring that other practitioners maintain high standards of care can act as a path to the improvement of quality care.

**Improving patient outcomes**

It is essential for nurses to not only play a role in helping their patients recover, but should also contribute to the general wellness of their patients. Therefore, it is necessary for a nurse leader to keep informing other nurses about the need for playing their integral role in caring for patients.

**Influencing quality improvement policies**

A professional nurse can play a major role in shaping the improvement of quality in procedures through engaging in qualitative and quantitative research concerning the improvement of care since it will allow them to have a vast knowledge regarding specific ways for influencing care (Li & Zeng, 2016). Besides, their participation in the policy-making process can lead to the enhancement of the quality of the policies developed.

**How the involvement of the professional nurses in RCA and FMEA demonstrates leadership qualities**

The participation of the professional nurses in RCA and FMEA shows leadership qualities in many ways. For instance, their involvement in those two processes helps in allowing them to contribute to the handling of processes in the hospital setting. Further, their engagement in the two processes gives them the opportunity of establishing ways that can help in guaranteeing a smooth run of operations that can minimize risks (Li & Zeng, 2016). Encouraging the active participation of the professional nurses in the two processes leads to the improvement in their capacity to understand specific health problems and design effective ways for handling those issues. Finally, the two processes demonstrate nursing leadership as it offers the professional nurses the ability to identify hospital problems, prioritizing those problems, and establishing effective solutions.

**References**

Claxton, K., & Campbell-Allen, N. M. (2017). Failure modes effects analysis (FMEA) for review of a diagnostic genetic laboratory process. *International Journal of Quality & Reliability Management*, *34*(2), 265-277.

Cummings, S., Bridgman, T., & Brown, K. G. (2016). Unfreezing change as three steps: Rethinking Kurt Lewin’s legacy for change management. *human relations*, *69*(1), 33-60.

Li, S., & Zeng, W. (2016). Risk analysis for the supplier selection problem using failure modes and effects analysis (FMEA). *Journal of Intelligent Manufacturing*, *27*(6), 1309-1321.

Peerally, M. F., Carr, S., Waring, J., & Dixon-Woods, M. (2017). The problem with root cause analysis. *BMJ Qual Saf*, *26*(5), 417-422.

Rybkowski, Z. K. (2015). *The application of root cause analysis and target value design to evidence-based design in the capital planning of healthcare facilities* (Doctoral dissertation).