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Quality assurance in clinical nursing practice

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Abstract

Quality assurance is a judgment concerning the process of care, based on the extents to which that care contributes to valued outcomes. Objective was to improve knowledge of staff nurses on application of six sigma model to improve quality care in patients. Setting was Medical intensive care units of PSG hospitals. Thirty samples on the basis of purposive sampling technique was adopted. Assessed the quality assurance practice of staff nurses through an observation check list on application of six sigma model and a planned teaching programme was given. Findings proved that knowledge improved from inadequate level of 26% in pre-test to an adequate knowledge score of 97% in post-test. It was concluded that such educational programme would help the health care professionals to follow the framework by visualizing the quality assurance model and can improve round the clock quality care for the patients.

Keywords: Quality assurance, six sigma model, quality care, knowledge

Introduction

Quality assurance in health care is often taken to be an innovative of late twentieth century but its gestation has a much longer history. According to “Ellis and Whittington (1993) Miss Nightingale notes on nursing” were in the fact standards for nursing care and remain benchmarks for high but achievable quality for many years. The same author brought up assurance programme in nursing. In 1965, the royal college of nursing in UK set up a ‘Standards of care’ project.

“Quality assurance is a judgment concerning the process of care, based on the extents to which that care contributes to valued outcomes”
-Donabedian

“It is the process for evaluating patient care in a particular setting by developing standards of care and implementing mechanisms for that the standards are met”
-Coyne C. Killien M.

“WHO defined quality, as making sure that the services provided by the hospital are the best possible in a given existing resources and current medical knowledge.

Objectives of quality assurance

- To ensure the delivery of quality client care.
- To demonstrate the efforts of the health care providers to provide the possible results.
- Formulate plan of care
- Attend the patient’s physical and non-physical needs.
- Evaluate achievement of nursing care
- Support delivery of nursing care with administrative and managerial services.

Principles of quality assurance

- Customer focus
- Leadership
- Involvement of people
- Process approach
- System approach to management
- Continual improvement
- Factual approach to decision making
- Mutually beneficial supplier relationship

Quality Assurance Process

- Establishment of standards or criteria

- Identify the information relevant to criteria
- Determine ways to collect information
- Collect and analyze the information
- Compare collected information with established criteria
- Make a judgment about quality
- Provide information and if necessary, take corrective action regarding findings of appropriate sources.
- Determine ways to collect the information

Approaches of quality improvement

1. General Approaches

- Credentialing
- Licensure
- Accreditation
- Certification
- Charter
- Academic degrees

2. Specific Approaches

- Peer review committees
- Standards as a device for quality assurance

Role of nurse in quality assurance

- Nurses are the active participation of interdisciplinary quality improvement team
- Develop mechanism for continually monitoring the effectiveness of nursing care both a collaborative and an individual professional activity.
- Contribute innovations and improvement of patient care
- Participating in improvement projects and patient safety initiatives
- Participate continuing educational programs and in service educational programs for continuing professional development
- Participate research works related to quality assurance
- Identify and area of needed improvement in delivery of care.

Factors Affecting Quality Assurance In Nursing Practice

- Lack of resources
- Personnel problem
- Improper maintenance
- Unreasonable patients and attendants
- Absence of well – informed population
- Absence of accreditation laws
- Lack of incident review procedure
- Lack of good hospital information system
- Absence of patient satisfaction surveys
- Lack of nursing care research

Six sigma in health care

Growing complexity in the health care system has become prone to high risk. So the quality of our current care delivery system is dependent of complex internal systems working smoothly and efficiently together. Various quality programmes are applied to make the systems successful. For the last few years the concept of sixsigma has also entered in health care system for the quality improvement in health care system.

Six Sigma

Six sigma is a business concept that answers customers demand for high quality and defect- free processes. The customers satisfaction and its improvement are usually

assigned with the top priority of any service activity. Its main goal is continuous improvement.

Goals of six sigma

The primary goal: to improve customer/client satisfaction and thereby profitability, by reducing and eliminating defects.

Defects may be related to any aspect of customer satisfaction: high service quality, cost minimization.

Subgoals: cost reduction, defect/ negligence reduction.

Benefits of six sigma

Six Sigma can help the organization to achieve a multitude of benefits:

1. Increased cost savings
2. Decrease levels of variations/negligence
3. Improved service quality
4. Maintains consistent quality of output
5. Better customer/client service
6. Enhanced employees' morale and satisfaction.

Six sigma methodologies

It has two key methodologies

- DMAIC (Define, Measure, Analyze, Improve, Control)
- DMADV (Define, Measure, Analyze, Design, verify)
- Other methodologies like CDOC (conceptualize, Design, Optimize and Control), DCCDI (Define, Concept, Design, Optimize, Verify)

Training in six sigma quality system

There are three levels of training in the six sigma quality system:

- Six sigma Green belt
- Six Black belt
- Six Yellow belt

Six sigma green belt

They are six sigma practitioners or the organizational employees who apply six- sigma to their jobs. They are trained in the methodology and tools to need to work effectively on a process improvement team. Green belt may act as a team member.

Six sigma black belt

They are the on-site experts, highly skilled in application of methodologies to drive business process improvement. They develop, lead cross functional teams and advise management on prioritizing, planning and launching Six Sigma projects.

Six sigma master black belt

A Black belt achieves “Master” status after demonstrating experience and impact over some period of time. They develop an in-depth understanding of most complex process of improvement projects.

Six sigma yellow belt

Six-sigma yellow belt experts are usually the individual process owners and operators who can then act as team members on six- sigma projects. They have:

- Basic knowledge of six sigma, but does not lead projects own
- Are responsible for running smaller process

improvement projects using the PGDCA and enables yellow belts to identify processes.

- Feed information to green belts and black belts working on larger system projects.

Principles of six sigma

Three main principles of Six Sigma are:

- What is important to customer/client? – customer oriented
- What is an opportunity? – chance oriented
- What defines success? – Indicator to measure success or failure

Six Sigma Model

The six sigma model has been developed by Beth Lanham and Pamela Maxson-cooper in 2003, is based on steps of DMAIC six sigma include define, measure, analyze, improve and control.

This model has a great practicability into the health care settings due to practical approach to standardizing processes and use of its statistical methods. It focuses on process/service improvement efforts to reduce the chance of errors occurring to 3.4 errors per million.

It is specially experimented to answer for nursing to reduce medical errors and enhance patient safety.

Steps involved in implementing six sigma in a hospital

- Identification of the customer expectations
- Identification of various processes involved in the system
- Develop a quality function deployment for a hospital
- Identification of processes critical to quality (CTQ)
- Identification of areas in CTQ for improvement
- Develop project definition along with the time frame and expected outcome as per the customer expectations
- Follow DMAIC process of the project
- Complete the project, record findings and explicit benefits

- Choose another project.

Keys to six sigma success

- Administrative and leadership support
- Align goals with six sigma activities
- Establish six sigma infrastructure
- Ensure execution and accountability

Challenges in launching six sigma

- Definition of errors
- Scope of projects
- Difficulty in obtaining data
- Lack of internal resources
- Steep learning curve
- Difficulty qualifying improvements

The challenges confronting organizations are complex and no overnight solution will make the problems disappear. Taking a calibrated approach to performance improvement however can help the organizations to regain control and realize substantial benefits of Six- Sigma system.

Problem Statement: Effectiveness of planned teaching programme on application of six sigma model to improve quality care in patients at a selected tertiary care hospital

Objectives: To improve knowledge of staff nurses on application of six sigma model to improve quality care in patients

Methodology: One group pre-test post-test only group design was adopted. Setting was Medical intensive care units of PSG hospitals. Thirty samples on the basis of purposive sampling technique was adopted. Tools used were observation check list on application of six sigma model to assess the quality assurance practice of staff nurses and a planned teaching programme

Application of six sigma model for quality improvement in MICU-DMAIC methodology

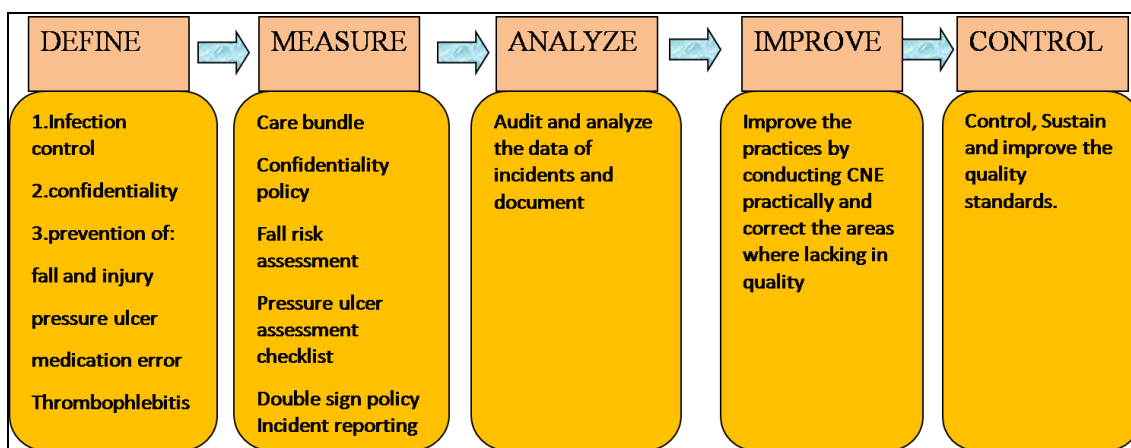


Fig 1: CTQ = Critical to quality: Follow standard precautions, procedures and protocols of hospital to improve the quality care

Application of six sigma model for quality indicator in MICU

The six sigma model was applied in the MICU department in a tertiary care hospital setting to improve the quality care to the patients. In this model we framed certain quality indicators for analyzing the quality improvement. The six

sigma model comprises of 6 components define, measure, analyze, improve and control. The quality policy needed in MICU were applied under the headings of define, through quality indicators, we measured the outcome and analyzed through audit process and improved the knowledge among nurses.

Findings

Table 1: Effectiveness of planned teaching programme on application of six sigma model to improve quality care in patients.

| S. No | Knowledge level | Pre-test | | Post-test | |
|-------|----------------------|-----------|------------|-----------|------------|
| | | Frequency | Percentage | Frequency | Percentage |
| 1 | Inadequate knowledge | 22 | 74% | 1 | 3% |
| 2 | Adequate knowledge | 8 | 26% | 29 | 97% |

Table shows that majority 74% of the samples fell under the category of inadequate knowledge level regarding the pre-test on application of six sigma model by staff nurses to improve quality patient care. Few samples around 26% were found with adequate knowledge level. In the post-test most of the samples 97% gained knowledge regarding the application and only one sample was found to be still in the inadequate level of knowledge. This depicts the effectiveness of planned teaching programme on the knowledge level of staff nurses.

Conclusion

Application of this model will help us to understand about the quality improvement. It will help the health care professionals to follow the framework by visualizing it and can improve round the clock quality care for the patients.

References

1. Ann Marriner Tomey. Nursing management and leadership, 8th edition, Elseviers publications.
2. Clement I. Management of nursing services and education, 2nd edition, Elseviers publications.
3. Neelam Kumari. A textbook of Management of nursing services and education, 4th edition, PV publications.
4. Shabeer BP. A Consice textbook of advanced nursing practice, 1st edition, Emmess publications 2012.
5. Vati J. Principles and practice of nursing management and administration for B.Sc and M.Sc Nursing, 1st edition, Jaypee brothers 2013.