CHAPTER-VII

SUMMARY

This study was carried out to assess the effect of Individualized Communication Protocol on the clinical outcomes of patients who were in a state of coma in an Intensive care unit of a tertiary care hospital.

OBJECTIVES OF THE STUDY

Primary Objectives:

PHASE-I

1. To develop Individualized Communication Protocol for staff nurses to be used for comatose patients.

2. To evaluate effectiveness of training on Individualized Communication Protocol on knowledge of staff nurses working in ICU.

3. To evaluate effectiveness of training on Individualized Communication Protocol on practice of the staff nurses working in ICU.

PHASE-II

4. To evaluate effectiveness of Individualized Communication Protocol implemented by nurses working in ICU on clinical outcomes of comatose patients in terms of physiological adverse events, level of consciousness, level of agitation and sedation and pain level.

Secondary Objectives:

PHASE-I

5. To find correlation of pre-test knowledge and practice of nurses working in ICU.

6. To find association between level of knowledge and socio-demographical variablesof nurses.

7. To find association between level of practice and socio-demographical variables ofnurses.

8. To assess opinion of nurses working in ICU regarding acceptability of Individualized Communication Protocol.

Variables under study

Independent variables: Individualized Communication Protocol

Dependent Variables:

1. Knowledge and practice of staff nurses.

2. The clinical outcomes of the comatose patients in terms of physiological clinical variables, consciousness, sedation, and pain.

Methodology

A quantitative research approach and one-group pre-test-post-test design was used to assess the effectiveness of an Individualized Communication Protocol training program on the knowledge and practice of staff nurses working in ICU and a quasi-experimental research design was used to evaluate the effectiveness of an Individualized Communication Protocol on clinical outcomes of comatose patients in ICU at a tertiary care hospital.

A total of 171 staff nurses were selected using total enumeration sampling technique and 113 comatose patients admitted in ICU were selected by using purposive sampling technique. The investigator first collected data of comatose patients in control group. Patients received communication from staff nurses working in ICU during routine nursing care from day one in ICU. Researcher collected data on clinical parameters of comatose patients and assessed their level of consciousness, level of sedation and agitation and pain level twice daily. Researcher followed these patients in control group till 14 days/transfer out of patients from ICU/Death/LAMA,whichever was earlier.

Pre-test knowledge was assessed by administering structured knowledge questionnaire and practice was assessed by observing one communicative event practiced by staff nurses on comatose patient with the help of an observational checklist. Individualized Communication Protocol (ICP) comprising of four components viz. environmental preparation, verbal communication with comatose patients, non-verbal communication with comatose patients, and family verbal communication, was administered to all the staff nurses working in ICU. Post-test knowledge and practice were assessed on the seventh day.

After administering the Individualized Communication Protocol (ICP) to staff nurses, time was given to them to practice Individualized Communication Protocol (ICP) on comatose patients while giving nursing care to them.   After 1 month data of comatose patients in experimental group was collected. Baseline data on Clinical parameters of patients were collected on day 1 in ICU. Patients received Individualized Communication Protocol from staff nurses working in ICU during routine nursing care activities which were routinely carried out during both morning

and evening shifts. Researcher followed patients in experimental group till 14 days/transfer out of patients from ICU/Death/LAMA, whichever was earlier.

Results:

Effectiveness of training on Individualized Communication Protocol on knowledge and practice of the staff nurses working in ICU

Pre-test results showed that majority of staff nurses 100 (59%) had good knowledge, 58(34%) had poor knowledge, and only 13 (8%) had very good knowledge regarding communication with comatose patients. After administration of Individualized Communication Protocol, majority of staff nurses 140 (82%) were in the category of very good knowledge. Practice results showed that all (100%) staff nurses had below average practice score regarding communication with comatose patients before intervention whereas after administration of Individualized Communication Protocol majority of them 97 (57%) had average and 66 (39%) had above average practice score. This reveals that Individualized Communication Protocol increased knowledge and practice of staff nurses.

Opinion of nurses regarding Individualized Communication Protocol

The majority of nurses (91-98%) opined positively regarding the acceptability and usability of the Individualized Communication Protocol for comatose patients in ICU.

Effectiveness of Individualized Communication Protocol on clinical outcomes of comatose patients in terms of physiological adverse events

The study findings showed that the median scores of heart rate, blood pressure, temperature, oxygen saturation, and blood glucose level of comatose patients were similar among patients in experimental group and control group throughout the study period representing that Individualized Communication Protocol had no significant effect on above mentioned clinical parameters. However, some incidences of physiological adverse events were observed during study period in both experimentaland control group as mentioned below:

- **Occurrence of tachycardia:** results demonstrated that frequency of tachycardia was higher (358) in comatose patients in control group compared to experimental group (296). The difference was highly significant (p<0.001).

- **Occurrence of hypertension:** results showed that frequency of hypertension was higher (27) in comatose patient in control group compared to experimental group (6).

- **Occurrence of hypothermia**: results demonstrated that frequency of hypothermia was higher (17) in comatose patients in control group compared to experimental group (1). The difference was highly significant (p<0.001).

- **Occurrence of hyperthermia:** results showed that frequency of hyperthermia was higher (35) in comatose patient in control group compared to experimental group (8). The difference was highly significant (p<0.001).

- **O**ccurrence of hyperglycaemia: results showed that frequency of hyperglycaemia was higher (394) in comatose patient in control group compared to experimental group (310).

- **Occurrence of desaturation:** results demonstrated that frequency of desaturation was higher (7) in comatose patients in control group compared to experimental group (2). The difference was highly significant (p<0.001).

Effectiveness of Individualized Communication Protocol on clinical outcomes of comatose patients in terms of level of consciousness

- Results showed a gradual improvement in level of consciousness scores of comatose patients in the experimental group compared to control group, from the third day morning onwards (p<0.0001).

- The study findings also revealed that on 14th day level of consciousness was clinically better in the experimental group as compared to control group (p<0.05), revealing that Individualized Communication Protocol had a positive effect on level of consciousness of comatose patients in experimental group.

Effectiveness of Individualized Communication Protocol on clinical outcomes of comatose patients in terms of level of agitation and sedation

- Results showed that patients in the experimental group showed more comfortable behavior and remained in more quiet, relaxed, and cooperative state than the control group; thereby requiring less sedation (a mean score of -1.44) compared to patients in the control group (a mean score of -3.00) revealing that Individualized Communication Protocol had a positive effect on the level of agitation and sedation among comatose patients in the experimental group.

- The difference between both the groups was statistically significant with a p value of 0.001 on the 1st day till the 9th day. However, it was found that the difference in level of sedation was statistically not significant on the 10th, 11th, 13th, and 14th day.

Effectiveness of Individualized Communication Protocol on clinical outcomes of comatose patients in terms of level of pain in comatose patients

- Results showed a gradual reduction in level of pain scores of comatose patients in the experimental group compared to control group, from the 5th day morning onwards with statistically significant difference between the groups (p<0.0001).

- Results also showed that on 14th day, the mean score of pain was clinically lesser in the experimental group (3.22) as compared to the control group (5.14) with statistically significant difference between the groups (p<0.05) revealing that Individualized Communication Protocol had a positive effect on level of pain of comatose patients in experimental group.

Conclusions

Based on the findings of the study it is concluded that Individualized Communication Protocol was effective in reducing the incidences of physiological adverse events, increasing level of consciousness, improving comfort, reducing level of agitation and sedation, and reducing level of pain in comatose patients of the experimental group admitted in ICU.

Summary: This chapter included a summary of the study-research statement, objectives, variables, methodology, and results.