## CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

<table>
<thead>
<tr>
<th>SERIAL NO</th>
<th>CONTENT</th>
<th>PAGE NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Background</td>
<td>198</td>
</tr>
<tr>
<td>5.2</td>
<td>Problem statement</td>
<td>200</td>
</tr>
<tr>
<td>5.3</td>
<td>Objectives</td>
<td>200</td>
</tr>
<tr>
<td>5.4</td>
<td>Research Methodology</td>
<td>200</td>
</tr>
<tr>
<td>5.5</td>
<td>Findings of the study</td>
<td>202</td>
</tr>
<tr>
<td>5.5.1</td>
<td>Demographic data of nurses’</td>
<td>202</td>
</tr>
<tr>
<td>5.5.2</td>
<td>Analysis of knowledge score of nurses’</td>
<td>203</td>
</tr>
<tr>
<td>5.5.3</td>
<td>Analysis of practice score – nurse-nurse communication during hand off</td>
<td>205</td>
</tr>
<tr>
<td>5.5.4</td>
<td>Analysis of practice score – nurse-patient communication during admission process</td>
<td>207</td>
</tr>
<tr>
<td>5.5.5</td>
<td>Co-relation of knowledge with practice</td>
<td>209</td>
</tr>
<tr>
<td>5.5.6</td>
<td>Opinionnaire of nurses regarding self instructional module</td>
<td>210</td>
</tr>
<tr>
<td>5.5.7</td>
<td>Analysis of patient feedback on nurses communication</td>
<td>211</td>
</tr>
<tr>
<td>5.6</td>
<td>Discussion</td>
<td>212</td>
</tr>
<tr>
<td>5.7</td>
<td>Limitations</td>
<td>217</td>
</tr>
<tr>
<td>5.8</td>
<td>Nursing Implications</td>
<td>218</td>
</tr>
<tr>
<td>5.8.1</td>
<td>Nursing service and administration</td>
<td>218</td>
</tr>
<tr>
<td>5.8.2</td>
<td>Nursing Education</td>
<td>218</td>
</tr>
<tr>
<td>5.8.3</td>
<td>Nursing Research</td>
<td>218</td>
</tr>
<tr>
<td>5.9</td>
<td>Scope</td>
<td>219</td>
</tr>
<tr>
<td>5.10</td>
<td>Recommendations</td>
<td>219</td>
</tr>
<tr>
<td>5.11</td>
<td>Conclusion</td>
<td>220</td>
</tr>
<tr>
<td>5.12</td>
<td>Personal experience</td>
<td>221</td>
</tr>
<tr>
<td>5.13</td>
<td>References</td>
<td>223</td>
</tr>
</tbody>
</table>
CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 BACKGROUND

All patients have the right to effective, safe care at all times. Patients admitted to a healthcare setting can be treated by a number of healthcare personnel, in multiple settings. Patients also move between areas of diagnosis, treatment and care on a regular basis and may encounter three shifts of staff each day. The handover between units or amongst care teams might not include all important information, and there are chances that this information may be misinterpreted / misunderstood. These gaps in communication can cause a serious breakdown in continuity of care, and may also harm a patient.

Effective nursing handover can have a positive impact on patient outcomes. Inadequate or incorrect information can play havoc with patient safety and continuity of care. Nursing shift handover varies from hospital to hospital and, within a hospital, from department to department. In the current scenario, handover used to take place verbally with all the nurses visiting each patient’s bedside. There was evidence of omission of information regarding changes in vital parameters, diet, medication and referrals with the current handover practices. These incidences were reported as and when they occurred primarily by the physician and most commonly by nurses in charge. Therefore a structured format was felt necessary to capture and disseminate essential information about patient care. Structured handover, incorporating key areas of essential information, will provide a frame work to ensure effective continuity of care.

The greatest cause of disturbance to a patient’s peace of mind is the failure of communication at all levels. Poor communication is an important factor in errors occurring in healthcare units. Patients admitted in the hospitals believe that they are in
competent hands, but an increasing number of incidents of medical errors are being reported. Nearly three in four errors are caused by human factors associated with interpersonal interactions. In addition, according to data from the Joint Commission on Accreditation of Healthcare Organizations, breakdown in team communication is a top contributor to sentinel events. Therefore communication in nursing is essential for achieving good outcome for patients.

During the course of practice, the researcher has observed nurse’s interaction with patients in the oncology unit. For cancer patients communication with healthcare professionals is an important mode of interaction. It was noted in many situations that an effort at communicating with patients would have resolved many problems. Several patients who were discharged after their stay in the oncology units revealed that they remember their hospitalization with feelings of anxiety, anger and distrust about the staff along with difficulty in communication. These findings suggest that the nursing staff need to improve communication skills. On-going education for healthcare professionals can improve communication skills in difficult contexts. Several authors have also published positive results from randomized trials or other outcomes assessments of communication skills training in oncology.

Communication is a skill that can be learnt. Therefore the researcher felt the need to prepare a module which would help nurses improve their interaction with patients and relatives. The aim of the nurses is to guide the patient and relatives through their illness. In order to do this effectively, the nurses must first understand the theory behind the art of communication and its associated problems. Nurses carry a significant responsibility for the interpretation of communication between individuals and other healthcare team members. Therefore it is essential for nurses to be appropriately trained in addressing patient care issues in their nursing practice. Oncology nurses who are trained in clinical communication skills would be able to help patients in a professional manner. Information needs can be addressed by various methods. One of the methods is a self instructional module. Since they are adult learners, a self instructional module would help each nurse read and comprehend the contents at his/ her own pace. It would also serve as a reference guide if needed.
5.2 PROBLEM STATEMENT

Facilitating clinical communication skills development of a training module, and testing its efficacy on knowledge and practices in selected aspects of clinical communication skills of nurses in their interaction with patients and healthcare professionals, in an oncology unit in Navi Mumbai.

5.3 OBJECTIVES

Phase I
1. To develop and validate a self instructional module on clinical communication.

Phase II
1. To assess knowledge regarding clinical communication among nurses working in an oncology hospital, before and after providing the self instructional module.
2. To assess the practices of nursing staff in relation to clinical communication skills, before and after providing the module.
3. To compare knowledge and practices of nursing staff, before and after providing instructional module.
4. To determine the association between clinical communication skills and selected variables such as age, gender, work experience, professional education.
5. To determine the views of nursing staff regarding the teaching module.
6. To assess patient satisfaction regarding communication received from nurses.

5.4 RESEARCH METHODOLOGY

Initially a review of literature was undertaken to gain a better insight into the problem. A descriptive approach using one group pre test – post test design was used. The study was done in two phases. Phase I involved the development of the self instructional module. In Phase II, one group pre test – post test design was used to identify the effect of the self instructional module on knowledge and practice of nurses with regard to communication skills. In this study, the independent variable was the self instructional module which was given to the nurses regarding clinical
communication skills and dependent variable: was the knowledge and practice of nurses with regard to handover and admission process. The effect of the independent variable on dependent variable was studied.

The study was conducted in a tertiary care cancer hospital in Navi Mumbai. Nurses (113 Nos.) working in the oncology unit at ACTREC and willing to participate in the study were included. For observation of practice, nurses who were actively involved in bedside care were selected. Non-probability convenient sampling technique was used for knowledge, handover practice and patient satisfaction feedback. For observation of admission practice and audit of SBAR form, simple random sampling method was used. Self reporting technique and non participatory observation technique were used to elicit information from nurses.

Validity of the structured questionnaire, observation checklist, opinionnaire, patient feedback form and self instructional module was established by giving it to nine nursing experts, one clinician, one language expert and one communication expert. Patient feedback and satisfaction questionnaire was translated into two languages (Hindi and Marathi). Suggestions/ corrections were incorporated wherever required.

The reliability of the questionnaire was established by test re test, and analyzed using Cronbach Alpha. Internal consistency index for the questionnaire was 0.74. An inter rater reliability analysis using the Kappa statistic was performed to determine consistency among raters. For the admission process, Kappa = 1.00 (p <0.001), and for the handoff, Kappa = 0.83 (p <0.001). This study was approved by the Institutional Review Board of ACTREC, Tata Memorial Centre, Navi Mumbai, Maharashtra State.

The tool and self instructional modules were pretested on six nurses for feasibility and practicality. A pilot study was conducted from December 2013 to January 2014. This ensured the feasibility and appropriateness of the tool. Data collection commenced from March 10, 2014 and ended on September 19, 2014. A
research assistant was trained for observation, and inter rater reliability was carried out.

The study was carried out in three phases. Phase-I included pre test observation of nurses for handoff and admission process. Five nurses were observed daily during shift handover. The admission process was initiated for 30 nurses. In all, 102 nurses (handoff) and 29 nurses (admission process) completed observation for practice, in the first phase. In phase-II, pre test of knowledge and distribution of self instructional module were undertaken. Nurses were asked to go through the module, and they were given a period of four weeks to read and understand the contents of the module. Phase-III commenced with post test of knowledge, completion of opinionnaire, post test observation, audit of SBAR and patient feedback. The data collected was analyzed in terms of descriptive and inferential statistics.

5.5 FINDINGS OF THE STUDY

A total of 113 nurses were enrolled into the study. All the nurses were currently working in ACTREC. Therefore the pre test sample size was 113. Over the data collection period, 13 nurses became unavailable to participate in the study either due to medical reasons (3) or due to attrition /resignation (10). Thus, only 100 nurses were present for the post test. Thus, the pre test and post test sample size for knowledge was 113 and 100 respectively.

5.5.1 DEMOGRAPHIC DATA OF NURSES

Age: The age group varied from 21-60 years with a mean of 29.66 and median of 22.65. Majority of the nurses (67%) were in the age group 21-30 years; one nurse was in the age group 51-60 years.

Gender: Nursing staff comprised mostly of females (75%); however, interestingly, there was a good representation of male nurses also (25%).
**Qualification:** There was an equal representation of General Nursing Midwifery (39%) nursing staff and graduate (39%) nursing staff. Around 20 percent had also undergone a specialization in oncology nursing after their basic qualification. Two nursing staff had completed their Masters in Nursing.

**Experience:** The experience varied from 0-26 years. Fifty percent of them had less than five years of experience, and about 23 percent had 6-10 years experience.

### 5.5.2 ANALYSIS OF KNOWLEDGE SCORE OF NURSES

Knowledge was tested in six domains, namely concepts about communication, verbal and non-verbal communication, barriers in communication, communication skills, and documentation.

There was a significant change in knowledge score in most of the areas. The change in concept was 15 percent ($p<0.01$), in communication skill it was nine percent ($p<0.01$) while in verbal communication and non-verbal communication it was five percent and seven percent respectively.

The two areas where a change was noticed - though not statistically significant, were in barriers of communication (1%) and documentation (3%).

A strong statistical change in knowledge was evident from the $p$ values in concept about communication, verbal, non-verbal and communication skill ($p<0.05$).

There was an improvement in overall knowledge score of nurses. The scores increased from 55 percent during the pre test to 62 percent in the post test. The mean difference between the pre and post test scores was 2.91. Fifty eight percent nurses were having good and above during the pre test whereas it increased to 77 percent in the post test. The improvement in the grade can be attributed to the self instructional module. Reinforcement in areas of barriers in communication and documentation ($p>0.05$) needs focused attention.
With regard to change in the knowledge score of nurses in relation to their demographic variables, there was an overall positive percent change in knowledge score in the younger age group of 21-30 years (8%) and 31-40 years (8%), between male (8%) and female (7%), and those who have completed their M.Sc. Nursing (11%) and post basic B.Sc. Nursing (11%). A marked improvement was seen in nurses who had 16-20 years of experience (12%) while in those above 21 years (2%) there was a decline in the scores.

Any increase or decrease in the score was taken as positive and negative change respectively. Analysis of the pattern of change in the knowledge scores showed that there was a positive change in knowledge in 68% of nurses. Further analysis revealed that the younger age group had better reception than the older age group. Seventy four percent of nurses in age group 31-40 years and 68 percent of nurses in age group 21-30 years showed a positive change. There was an equal percent of change in males and females (68%). With regard to qualifications, it was seen that higher the education, better was the change. Those who had done Masters in Nursing (100%) and basic B. Sc. nursing (73%) showed a positive change compared to others. A positive change (73%) was also seen in nurses with 6-10 years and 16-20 years of experience.

Analysis also showed that 20 percent and 12 percent showed a negative change or no change respectively. The reason for this may either be because the nurses had not read the module or the nurses might have had difficulty in reading English as they were from a vernacular medium. This highlights the importance of re-enforcement of information. There was no association between change in knowledge scores with the demographic variables (p>0.05). The non significance may be attributed to subdivision of nurses into smaller age groups. There was no association between overall knowledge scores and demographic variables (p>0.05).

**Testing of hypothesis I**

Hypotheses was tested using the paired ‘t’ test. Overall pre and post test mean difference was 2.91 with a standard deviation of 4.70. It shows the calculated t value 6.19 is greater than the table value 1.98 with 99(d.f.) at 0.05 level and 2.62 at the 0.01
level. Thus, the calculated value is highly significant statistically. The mean difference obtained is a true difference and not by chance. Therefore the null hypothesis was rejected and the alternate hypothesis was accepted. The self instructional module brought about a statistically significant improvement in knowledge scores of the nurses.

5.5.3 ANALYSIS OF PRACTICE SCORES FOR NURSE – NURSE COMMUNICATION DURING HANDOFF

A total of 102 nurses were present for the observation of practice. In-charges who were not actively participating in bedside nursing were excluded from the study. During the post observation period, the sample size was 92.

Three observations of individual nurses were undertaken during post test. The maximum occurring action was considered for all the three observations and the mode was calculated to arrive at a single post test score. There was an improvement in the observation score from pre test (49.6%) to post test (74.8%), with the mean difference being 5.53. McNemar’s test is a statistical procedure used to compare two proportions which are dependent or correlated. Item wise comparison of pre test and post test observations was carried out using McNemar’s test. Nine out of 22 observations had a significant difference between the pre test and post test scores (p<0.05).

With regard to grades, the majority (64%) of nurses had average grade in the pre test, while only 1% stayed in average grade in the post test and as many as 55% moved to the excellent grade in the post test.

The handover observation checklist had two components, (i) Communication and (ii) Nursing Responsibility. Both these components can be described as two sides of the same coin. They go hand in hand. Both are important for successful handover.

**Communication:** The concept of incoming nurse being introduced to the patient is not a current routine practice and therefore the pre test score for this item was “0”, which improved to 24 percent in the post test. The outgoing nurses need to update the
incoming nurse with the plan of care for the next eight hours. This was not evident in 38 percent of staff in the pre test, but it improved significantly to 93 percent in the post test. Nurses need to focus on patient’s experiences and needs, and involve the patient in the plan of care. The compliance to this item was 12 percent in the pre test, which did not change much in the post test (18%) either. Patient’s involvement during handover is pivotal for decision making.

**Nursing Responsibility:** Most of the surgical patients have drain bag for collection of fluids, post surgery. It was observed that only 28% of nurses checked the bag in the pre test. The compliance increased to 72 percent in the post test. Similarly checking of the suture site for bleeding, gaping, or discoloration was observed in only eight percent nurses in the pre test which improved significantly to 93 percent in the post test. Patients who have undergone surgery for cancer of the buccal mucosa may have a flap which needs to be assessed for color and warmth. For this vital observation, there was a decrease in compliance from 67 percent in the pre test to 27 percent in the post test.

With regard to change in the handoff practice score of nurses in relation to their demographic variables, there was an overall positive percent change in all categories. Data analysis revealed that the change was significant in the age group 31-40 years (29%), males (27%), those who have completed their post basic nursing (34%), and those who have 6-20 years of experience. No association was seen between pattern of change in handover practice score or overall practice score with demographic variables. (P >0.005)

**Testing of hypothesis II**

Hypotheses was tested using the paired ‘t’ test. The mean difference between pre and post observation for handoff practice score was 5.53 ± 0.238 with a standard deviation of 2.29. The calculated t= 23.18 was greater than the table value. Table t value at d.f. 99 at 0.05 level was 1.98 and at 0.01 level was 2.62. Hence the calculated value was highly significant statistically. Therefore the null hypothesis was rejected and the alternate hypothesis was accepted. The self instructional module was effective in improving the practice of the nurses with regard to handoff.
A retrospective audit was done to establish compliance with the newly introduced Situation, Background, Assessment, Recommendation (SBAR) form, which is a part of the self instructional module. Two observations were carried out for each nurse. There was just a small change in the mean scores between the first observation (23.20) and the second (23.65). The difference was not significant statistically (p>0.05). There was just a slight variation in their documentation. In the first observation regarding situation, documentation related to age was only 45% while it was 80% in the second. Patient’s allergies, relevant past history and identifying co-morbidities were not given importance during documentation. In the background, there was more than 95% compliance. Areas requiring compliance related mostly to medication and blood products, as the compliance was only 80%. With regard to assessment, almost 100% compliance was noted. Compliance was good in the area of recommendation. Though there was around 80-85 percent compliance related to investigation and reports, in some of the files sampled, information related to reports awaited like serum electrolytes, calcium, or urine was not documented. Referrals for physiotherapy, psychiatry and dietician reference were also not captured. Only 60-70 percent of the nurses had documented the plan of care.

5.5.4 ANALYSIS OF PRACTICE SCORES FOR NURSE – PATIENT COMMUNICATION DURING THE ADMISSION PROCESS

Thirty nurses were selected by random sampling. A total of 29 nurses were present for the observation of practice. During the data collection period, four nurses from the BMT unit could not be observed for admission process as there was no admission during that period in their unit. During the post observation period, the sample size was 22.

The maximum occurring action was considered for all the three observations, and the mode was calculated to arrive at a single post test score. There was an improvement in the observation score from the pre test (70%) to the post test (85%). The mean difference was 2.24. There was a significant improvement seen in most of the areas. The percent change for verbal communication was (24%), non-verbal
(18%) and communication skills (12%). Documentation (5%) was one aspect where least change was observed. With regard to the pattern of change in the admission practice score, 72 percent of nurses had a positive change, while 14 percent each showed no change or negative change respectively. Further analysis revealed that there was an improvement in percent change in the age group 41–50 (31%) and in those with 21–25 years of experience. It can be inferred that, with experience, nurses are more comfortable in their interaction with patients. In males (1%) and in nurses with diploma in oncology (2%) there was negative change.

Item wise comparison of the pre test and the post test observation was carried out using McNemar’s test. Of the total 15 observations, there was a significant difference in two items, i.e. greets the patient (p<0.05) and remains silent at times/ allows the patient to talk (p<0.05), with a percent change of 29 percent and 37 percent respectively.

There were three items in which improvement in scores was not evident. In the steps of the admission process, the first point stated that the nurse has to introduce herself. During the pre test, none of the nurses introduced themselves, while in the post test around 23 percent nurses did so. During the post test, 91 percent of nurses shared information regarding the patient’s treatment (72% in the pre test), and 77 percent oriented patient and family to the surroundings (48% in the pre test). All the nurses (100%) maintained a pleasant expression (86% in the pre test), 95 percent remained silent, thus allowing the patient to talk (66% in the pre test). Only 28 percent of the staff re-stated the message in the pre test whereas 45 percent did so in the post test. Documentation compliance improved to almost 100 percent.

With regard to grades, majority (41%) of the nurses were good in the pre test while only 18% were found in this category after the post test. Many nurses from the good category moved to excellent (82%) in the post test.

A significant association was seen between the post test practice scores and experience (p <0.039). There was no association between the post test practice scores and other demographic variables like age, gender and qualification. (p >0.05). There
was no association between the pattern of observation score changes in the admission process and demographic variables.

**Testing of hypotheses III**

This hypothesis was tested using the Wilcoxon signed ranked test, which is a non parametric statistical test used for comparing two related matched samples of a smaller sample size. The table showed that the Z value is -3.47. Table Z value at d.f. 21 at 0.05 level is 1.96 and at 0.01 levels it is 2.57. Hence the calculated value is highly significant statistically. Therefore the null hypothesis is rejected and the alternate hypothesis is accepted. The self instructional module brought about a statistically significant improvement in practice scores of nurses with regard to admission process.

**5.5.5  CORRELATION OF KNOWLEDGE WITH PRACTICE**

Knowledge and practice were negatively correlated, i.e. an improvement in knowledge did not have any effect on the overall practice (p=0.37) on handover (p=0.16) or admission process (p=0.57). There was no correlation between knowledge grade and practice grades (p >0.05).

There were two main outcomes of this study:

1. Nurses would transfer knowledge and skills in clinical situations. This was achieved when nurses started using the SBAR format for communication during handover and change in communication pattern during the admission process.
2. Changes in the nurse’s communication pattern would result in better teamwork and increased satisfaction of patients. This was evident from the feedback given by the patients on the nurse’s communication.

A highly significant difference was found between overall pre test and post test mean scores on knowledge and practice of nurses in relation to selected aspects of communication after the implementation of the self instructional module (p<0.05). It
can be inferred that the self instructional module brought about a statistically significant improvement in the knowledge scores of the nurses.

5.5.6 OPINION OF NURSES REGARDING THE INSTRUCTIONAL MODULE

All the nurses opined that the module was simple and easy to understand. The majority felt that the content of module was relevant to their daily work (99%), and helped in better interaction with patients (93%) and other healthcare personnel (93%). Around 16 percent of nurses opined that there was omission of significant information, but they did not provide details about the same.

The opinionnaire also contained a question which asked them to list ways in which they needed to improve their communication skills. In all, 63 (67%) nurses responded to this question. The responses were mostly related to verbal communication (36, 57.1%); for e.g. improve verbal communication, better interaction with staff, correct use of words, present thoughts in correct sequence, learn local language, spend time talking to patients, continuously use SBAR, improve confidence, and write legibly. In non verbal communication (18, 28.6%), responses included a need to improve interpersonal relations between patients and nurses, maintain eye contact, make positive gestures and give more importance to the patient than the procedure. With regard to communication skills (9, 14.3%), the responses were to improve communication skill, use open ended questions, be assertive and listen to patients without interruption.

Nurses were also asked for suggestions on the communication skill module. Only 18 nurses (19.1%) gave suggestions. The majority (61%) suggested that all the nurses need to be oriented to the SBAR form and this format should be used for the transfer of a patient from one department to another. Around 39% nurses expressed that the lecture method should have been used as it helps to clarify doubts and thus make it more effective.
5.5.7 ANALYSIS OF PATIENT’S FEEDBACK ON NURSES COMMUNICATION

A large number of patients were between 46-65 years of age (50%). Majority (64%) of the patients were male. With regard to their education, 17 percent patients were illiterate and the rest had varying educational status. Twenty five percent patients were from day care, 49 percent from the surgical unit and 26 percent from the medical unit.

With regard to patient’s feedback related to nurse’s communication, majority of the patients responded that the nurses always greet them (86%), speak in a language they understand (96%), maintain eye contact (92%), ask about their condition (97%), are polite while conversing (98%), and explain prior to procedure/investigation/medicines (96%).

There was overall satisfaction with regard to the nurse’s communication. Forty three percent of the patients felt that nurses should spend more time communicating with them. Fifty two percent and 47 percent patients pronounced extreme satisfaction and satisfaction respectively with the nurse’s communication; on the opposing side, 15% and 18% patients reported frustration due to lack of communication either always or sometimes respectively. Among the 11 patients who felt frustrated due to lack of communication, 91 percent (n=10) also felt that nurses should spend more time with them and this result was significant (p<0.05).

Fifty seven percent of males and twelve percent of females were extremely satisfied with the nurse’s communication. With regard to education, those who had no education (58%) said they were extremely satisfied. Patients from all the departments reported >50% satisfaction with the nurse’s communication. There was no association between level of satisfaction and demographic variable (p>0.05).
5.6 DISCUSSION

Knowledge

In the knowledge questionnaire, there was no change in the knowledge scores pre and post test in few of the items. To the question on channels of communication, the majority mentioned verbal and non verbal communication. The correct answer to the question was visual and auditory. Only 20 percent in the pre test and 27 percent in the post test answered correctly. Similarly the meaning of empathetic listening, which means listener may disagree but understands the emotion of the other person, was not comprehended by the majority of the nurses. Only 23 percent in the pre test and 35 percent nurses in the post test responded correctly. To the question on what the frown (body language) indicates, only 28 percent in the pre test and 36 percent nurses in the post test responded correctly that a frown indicates dislike/ displeasure. Most of the nurses are local nurses and, though the medium of instruction is English, they may not be well versed with terminologies used like empathetic, frown, etc. Clarification of concepts, a few English terms and emphasis on a few aspects of non verbal communication need reinforcement. This needs to be initiated using a lecture method, since reading the instructional module did not help them clarify these concepts.

Any increase or decrease in score was taken as positive or negative change respectively. It was seen that the younger age group had better reception (68%) than the older age group (55%). This must be due to the better comprehension and retention capacity of younger age group. It was also noted that those who had done M.Sc. Nursing (100%) or Basic B.Sc. Nursing (73%) showed positive change compared to other nurses. This shows that higher the educational qualification, better the perception. With regard to years of experience, positive change was seen in nurses who had 6-20 years of experience. This is contradictory to the findings of Fallowfield et al, who had reported that time, experience and previous training had not helped nurses to deal with communication issues. It must be noted that there was a considerable decline in the scores in those above 21 years. This may be due to monotony of work nature or lack of interest to update their knowledge.
There was a positive change in most categories of nurses. The reason for no change or negative change could be because they may not have read the module or the nurses may have difficulty reading English as they come from a vernacular medium. This highlights the importance of re-enforcement of information. The self instructional module brought about a statistically significant improvement in the knowledge of nurses. It is difficult to ascertain whether the effect of self instructional module would sustain over time unless intervened by recurring sessions. During the literature review, the researcher did not find any study related to knowledge in communication.

**Nurse – Nurse Communication: Handoff**

The handoff observation checklist had two components: (i) Communication, and (ii) Nursing Responsibility. Both these components can be described as two sides of the same coin. They go hand in hand. Both are important for successful handoff. The change in nursing responsibility was not much maybe because those practices were already a routine for most of the nurses.

In the handoff practice, it was observed that only 28% of the nurses checked the bag for drain in the pre test. The observation about the amount, color of drainage or presence of kinks/ clots is important especially in the immediate post operative period. The compliance increased to 72 percent in the post test. Similarly checking of suture site for bleeding, gaping, or discoloration was observed in only eight percent nurses in the pre test, which improved significantly to 93 percent in the post test. Patients who have undergone surgery for cancer of the buccal mucosa may have a flap which needs to be assessed for color and warmth. A healthy flap will be pink, well perfused, minimally swollen in the postoperative period and warm to the touch. Vigilant postoperative monitoring in head and neck cancer patients can mean the difference between success and failure of the free tissue transfer. For this important observation, there was a decrease in compliance of this item from 67 percent in the pre test to 27 percent in the post test. A study undertaken by Cynthia D. Beckett confirms that when the SBAR tool is used in conjunction with the collaborative communication model, statistically significant changes are noted in the communication, teamwork, and the safety climate. A relatively recent systematic
review of the postoperative handoff literature by Segall et al., 2012 found that using structured checklists to guide communication to ensure information completeness, and using protocols to standardize the handoff process, are among the strategies for a safe and effective handoff. The concept of incoming nurse being introduced to the patient is not a current routine practice, and therefore the pre test score for this item was “0”, which improved to 24 percent in the post test. It is important for the patients to be aware of the nurse responsible for their care, and since the care nurse changes from shift to shift, it is important for each nurse to be introduced to the patient. The outgoing nurses need to update the incoming nurse with the plan of care for the next eight hours. In the pre test, only 38% of the nurses discussed the plan of care, which improved significantly to 93 percent in the post test.

The need for patients to participate in and make decisions about their care has gained consensus among health professionals in recent times. Kravitz and Melnikow, 2001 reported that patient participation should, from admission to discharge, be an integral part of modern surgical nursing care practice. Drach-Zahavy’s findings also illustrated the need to have different communication preferences, with different attributes, and felt that nurses need to be taught about communication and ways to engage patients during handover. Studies also enumerate that a personalized approach, being empowered and avoidance of medical jargon are all essential components of handover. Nurses need to focus on patients’ experiences and needs, and involve the patient in the plan of care. The compliance to this item was 12 percent in the pre test which did not change much in the post test (18%). This might be due to the Indian culture where the major decisions related to care are normally taken by the patient’s relatives and healthcare personnel. Therefore the nurses do not feel the need to involve the patient in the plan of care. Patients’ involvement during handoff is pivotal for decision making. Patients participate actively in handoff, when they feel a need for involvement to ensure continuity of care and are less active when they perceive that their contribution is unnecessary or not valued.

Patient care is the common goal of all the units of the hospital staff. It is imperative that each unit knows what the other units are doing towards this goal. The patient must know what is being done. Communication skills learnt by caregivers
benefit both them and the patient. All the units are linked into an integral whole resulting in holistic care to a satisfied patient. Visitors sense improvement in the hospital environment and notice that work is proceeding smoothly and without stress. Patient care has improved much to the satisfaction of all concerned.

**Use of SBAR for nursing handoff**

This was a new concept introduced as part of the instructional module. A standardized tool will permit capturing all relevant information. This was also felt by Klim S who suggested that provision of a handover framework incorporating key features and essential information has the potential to improve the efficiency of handover. It was noted that patient’s allergies, relevant past history and identifying co-morbidities were not given importance during documentation. Areas requiring compliance were mostly related to medication and blood products. In medication, important information like whether the patient is on an antiepileptic, or whether Tab. Aminodepine for is to be withheld for hypertensive patient undergoing surgery, or, if Inj. 5 FU is on continuous infusion or patient is on Inj. Clexane, a high alert drug was not documented. Transmission of such information is essential for patient care and safety. With regard to elimination (urine and stool), information about patient having diarrhoea or constipation was not captured in four cases. In one file, there was an order for removal of Foley’s catheter which was not documented.

All the information in the format is important, and hence 100 percent compliance is expected. An area that needs focusing is pain score, GCS score and fall risk. Pain is considered as a fifth vital sign and, as a routine, four hourly assessments is carried out. The area where nurses do not pay much attention is on Glasgow coma scale (GCS) and fall risk assessment. This may be because they do not consider it as an important aspect of patient care, or they may be assessing the patient but may not consider it important to document if the parameters are within normal limits. Both these areas are important specially in our unit where patients may be having neurological problems, are in older age group, are on medications for co-morbidities, prone to electrolyte imbalance or have GI disturbances.
Compliance was good in most of the areas of recommendation in the SBAR format. Though there was around 85-90 percent compliance related to investigation and reports, information related to reports awaited like serum electrolytes, calcium, or urine was not documented in some of the files sampled. The reason could be attributed to the workload and the need to check the online system for results. Referrals for physiotherapy, psychiatry and dietician reference were also not captured. One area which needed improvement was in plan of care. Information related to four hourly mouth care, watch for motor deficit, neuro monitoring, incentive spirometry, and use of TED stocking was not incorporated in the plan of care. This may be due to lack of clarity about the information to be documented. Monitoring handover is an important quality assurance process that is required to meet healthcare standards. A reliable and valid scale can be used in practice to monitor the quality of handover and provide information that can form the basis of education and training packages and guidelines to improve handover policies and processes.\(^{11}\)

**Nurse – Patient communication: admission process**

Regarding the practice score of the admission process, there was an improvement in the observation score from the pre test (69.7%) to the post test (84.5%). In the steps of the admission process, the first point stated that the nurse has to introduce herself. The admission process is the right time to make the patient feel welcome as he/she may be in apprehension because of the unfamiliar environment and the prognosis of his/her treatment. Here the nurses need to greet the patient and introduce themselves so as to enable the patient to feel relaxed and comfortable. During the pre test, there was no nurse who introduced herself while in the post test around 23 percent nurses did so. There were only 28 percent nurses who restated the message in the pre test while in the post test 45 percent did so.

Item wise comparison of the pre test and the post test observation was carried out using McNemar’s test. Out of the total 15 observations, there was a significant difference in two items, i.e. greets the patient (p<0.05) and remains silent at times/ allows patient to talk (p<0.05), with a percent change of 29 percent and 37 percent respectively. There is a need to reinforce communication skills related to the admission process in the near future. This finding is consistent with the paper of
Kruijver et al who suggested that nurses should be systematically provided with (continuing) training programs, in which they learn how to communicate effectively in relation to the patients’ emotions and feelings, and how to integrate emotional care with practical and medical tasks.\textsuperscript{12}

Forty three percent of the patients felt that they always felt nurses should spend more time communicating with them, and a few of them mentioned that they always (15\%) or sometimes (18\%) feel frustrated due to the lack of communication. This finding was consistent with a study conducted by Ben-Ami et al. In their study, interviews with discharged patients revealed that, as many as a quarter of those who could remember their hospitalization, reported feelings of anxiety, anger and distrust in the nurses and difficulty in communication. The findings suggest that the nurses need improved communication skills. There is evidence that the judicious use of communication techniques may improve patient satisfaction, reduce anxiety and reduce the duration of treatment.\textsuperscript{13}

5.7 LIMITATIONS

1) Knowledge of the nurses may have to be enhanced through additional reading, exposure to the mass media, etc.
2) It was difficult to complete data collection in the stipulated date as there were unavoidable changes in their shift timings.
3) The SBAR format was a self report tool and some nurses might have had difficulty in understanding the contents required for documentation, and therefore the accuracy of entry of SBAR data was questionable.
4) Content analysis of all the SBAR forms was not done.
5) Clarification may have been sought from a person other than the researcher.
6) Interruptions and distractions during the handover and admission process could have had an effect on the interaction or documentation.
7) Patient satisfaction regarding nurse’s communication was measured using quantitative analysis. Qualitative data would have helped to enumerate issues leading to varied levels of satisfaction.
5.8 NURSING IMPLICATIONS

The findings of the study are valid and relevant in the field of nursing. The implications of this study can be discussed under three headings, namely nursing service, nursing education and nursing research.

5.8.1 Nursing service and administration

The activity of nurses talking or listening to the patients usually exceeds other activities such as care related procedures. Thus communication can be viewed as a core clinical skill that requires considerable investment in terms of time and resources to train them in communication skills. It was indeed saddening to note that this area, though included in their basic nursing syllabus, did not promote confidence and competence. Good communication can have a positive effect especially for a patient with cancer, while poor communication can have an opposite effect both with the patient and the healthcare personnel. Therefore training in communication skills as a part of their induction and in service program is essential; this training can be imparted through self instructional module, lectures or interactive video applications. An on-going evaluation or feedback may be solicited from patients to identify their satisfaction about a nurse’s communication. Patient feedback is considered as the best evaluation.

5.8.2 Nursing Education

The curriculum for nurses includes communication as a part of their syllabus. Teachers need to lay emphasis on practical situations thus enabling student nurses to learn the art of effective communication. They could incorporate role play and simulations based on real life scenarios. The self instructional module can be used in addition to the theoretical aspect to prepare nurses in communication.

5.8.3 Nursing Research

The tools, techniques and findings of the study have added to the body of knowledge. Very few studies have been conducted in India on communication. More qualitative and quantitative studies can be initiated in various aspect of clinical
communication. Nurses should be encouraged to undertake small research studies on these topics.

5.9 SCOPE

1. This study will enable the identification of the existing level of communication between nurse - patient and nurse - nurse.
2. Exploration will help to gain a better insight about the nature of communication.
3. Communication with patients and healthcare professionals will influence the interaction and patient care outcomes.
4. Self instructional module will act as training material and will bring about changes in knowledge and practice.
5. Self instructional module can be used as a future reference material.

5.10 RECOMMENDATIONS

1. A similar study can be done comparing clinical communication skills of a private and a government institution.
2. Impact of SBAR on the shift report can be carried out as a randomized control trial in a cancer hospital.
3. A randomized control trial can be done to assess the effectiveness of the booklet.
4. A qualitative study can be carried out to assess the problems of nurses related to communication.
5. A similar study can be carried out with a larger sample size.
6. An observational study can be carried out to find out a nurse’s communication patterns.
7. A study can be undertaken to assess the communication effectiveness between nurses and physicians.
8. The attitudes of nurses can be assessed in relation to their perception of their role and its impact on communication.
9. A study can be undertaken to identify communication barriers and their impact on a nurse’s communication.
10. Comparison of simulation method versus self instructional module or interactive session to assess effectiveness in improving communication can be undertaken.

5.11 CONCLUSION

This study was undertaken to assess the efficacy of a self instructional module on knowledge and practice of nurses in relation to their communication with nurses and patients. The knowledge and practice of nurses on selected aspects of communication such as verbal, non verbal, barriers, communication skills and documentation were included. A modified SBAR format for shift handover was also a part of the study. Nurses need to be empowered with knowledge of communication skills which can be utilized in their day to day interaction with patients especially in a cancer unit where the patients are already in a different emotional state due to their illness.

A pre test post test design was used. There was a statistically significant improvement in knowledge and practice between pre and post test (p<0.05). The nurse’s opinion of the module was encouraging. Patients also expressed satisfaction with a nurse’s communication in the post test period. The researcher was able to achieve all the objectives of the study. From this study, it is evident that the self instructional module was effective in improving knowledge and practice in selected aspects of communication.
5.12 PERSONAL EXPERIENCE

The selected topic is close to my heart, as communication is a core skill and an essential component of nursing practice. In the clinical setting, most problems can be solved by simple communication efforts. Errors and issues related to medication, information transfer during shift handoff between nurses, and interaction between nurse and other healthcare personnel can disrupt the continuity of care, and pose a threat to patient safety. Therefore I chose this specific topic as it is very relevant in the current scenario.

A literature search was undertaken to identify studies conducted in the area of clinical communication. Electronic databases like Science Direct, Pub Med and CINAHL were also searched. Surprisingly, there were no studies about nursing communication or use of self instructional module. Writing of term papers and preparations of instruments (tools) had already provided me an insight into various aspects of communication. The instruments were finalized with inputs from my guide. Content validity by experts helped me narrow down the instrument to focused areas of communication. Bedside shift handoff and admission process were selected for observation, as these were standardized and would enable data collection objectively. Shift handoff was selected for nurse-nurse interaction, and admission process was selected for nurse-patient interaction. Change in handoff practice and use of SBAR was not well accepted initially, either due to resistance to change from the normal work routine or the lack of interactive sessions that could have helped the nurses to understand the process better. But with time, use of the SBAR form gained momentum and it came into routine use. It was found so effective that the nurses themselves suggested its use to be extended to handoff between department transfers.

The study also helped me to gain an insight into statistical methods, and the use of SPSS for data analysis. Analysis of the 306 observations (102 nurses x 3 observations) was a mammoth task, since the duty schedule was erratic at times and data collection had to be completed within the designed time frame. It required considerable patience to follow the plan and complete data collection on schedule. It
was an enriching experience that helped me attain a sense of satisfaction from the efforts undertaken, especially when the patient satisfaction results turned out positive.

Future plans include: (a) conducting interactive sessions on various aspects of communication, (b) improving the SBAR form and propagating its use for handoff in other hospitals, (c) using the SBAR form for communication between nurse and healthcare workers, (d) preparing a policy for handoff, (e) assessing patient satisfaction on a regular basis, and (f) publishing the booklet to improve communication among nurses.
5.13 REFERENCES


