

LARYNGECTOMEES EVALUATE PREOPERATIVE INSTRUCTION

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF SCIENCE
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

BY

ANN MICHELE CHOATE, B.S.

DENTON, TEXAS

MAY, 1975

TABLE OF CONTENTS

	Page
LIST OF TABLES	v
ACKNOWLEDGEMENTS	vii
CHAPTER	
I. INTRODUCTION	1
Statement of the Problem	
Purposes	
Background and Significance	
Definition of Terms	
Limitations	
Delimitations	
Assumptions	
Summary	
II. REVIEW OF LITERATURE	13
General Management of the	
Laryngectomized Patient	
Concerns of the Surgical Patient	
Principles of Preoperative Teaching	
Summary	
III. METHODOLOGY	45
Introduction	
Sample Population	
Development of the Tool	
Procedure for Data Collection	
Method of Analysis	
Summary	

IV.	ANALYSIS AND INTERPRETATION OF FINDINGS	55
	Introduction	
	General Description of the Sample	
	Descriptive Questions	
	Summary of Significant Findings	
	Summary of Chapter	
V.	SUMMARY, RECOMMENDATIONS, AND CONCLUSIONS	83
	Summary	
	Recommendations	
	Implications	
	APPENDIX A - QUESTIONNAIRE	90
	REFERENCES CITED	97
	BIBLIOGRAPHY	101

LIST OF TABLES

TABLE	Page
1. Demographic Data	56
2. Data Pertinent to Surgery	57
3. Rated Importance of Items in Category I--Tracheostomy Care	58
4. Suggested Timing of Items in Category I--Tracheostomy Care	59
5. Rated Importance of Items in Category II--Intravenous Fluids	60
6. Suggested Timing of Items in Category II--Intravenous Fluids	61
7. Rated Importance of Items in Category III--Feeding Tube	62
8. Suggested Timing of Items in Category III--Feeding Tube	63
9. Rated Importance of Items in Category IV--Speech	64
10. Suggested Timing of Items in Category IV--Speech	65
11. Rated Importance of Items in Category V--Pain	66
12. Suggested Timing of Items in Category V--Pain	67
13. Rated Importance of Items in Category VI--Intensive Care Unit	68
14. Suggested Timing of Items in Category VI--Intensive Care Unit	69

15.	Rated Importance of Items in Category VII--Postoperative Care . .	70
16.	Suggested Timing of Items in Category VII--Postoperative Care . .	71
17.	Rated Importance of Items in Category VIII--Preoperative Care . . .	72
18.	Suggested Timing of Items in Category VIII--Preoperative Care . .	73
19.	Rated Importance of Items in Category IX--Progress	74
20.	Suggested Timing of Items in Category IX--Progress	75
21.	Rated Importance of Items in Category X--Life After Laryngectomy	76
22.	Suggested Timing of Items in Category X--Life After Laryngectomy	77

ACKNOWLEDGEMENTS

The investigator would like to express her appreciation to committee members Lois Hough, Beth Vaughan-Wrobel, and Pat Bohannon for their counseling and guidance during the writing of this paper. Acknowledgement is also in order to Wayne Woodward for his statistical assistance. To the laryngectomees who participated in this study, the investigator wishes to express special thanks for their graciousness and hospitality during the collection of data.

CHAPTER I

INTRODUCTION

The patient scheduled for laryngectomy arrives at the hospital with a multitude of anxieties. The most frequent are concerns about the surgical procedure, time to be spent in the intensive care unit, developing a new way of speaking, care of a permanent tracheostomy, and the maintenance of satisfactory interpersonal relationships. Because surgery of the larynx is most commonly done for a tumor that is malignant, such a patient is often coping with the realization that he has cancer in addition to his concerns about the laryngectomy. Therefore, the preoperative psychological care is as important as the physical care.

By being available to the patient and encouraging him to discuss his thoughts and feelings at this time, the nurse can identify and validate with the patient areas of need and plan ways to meet these needs. By planning with the physician to see that the patient's questions are answered as honestly as possible and by including the patient in planning his own care, the nurse can help the patient decrease his fear of the unknown and his feelings of loss of control. Preoperative teaching is designed so that the patient will know what to expect in terms of preoperative diagnostic procedures.

postoperative routines, and plans for rehabilitation. Therefore, the patient is able to participate and cooperate more fully with the health team throughout his hospitalization.

Preoperative instruction is the responsibility of the professional nurse as well as the physician. They work together to meet the patient's needs and to help him become a respected, well-informed member of the health care team. When instruction is not given, or is inadequate, the patient is likely to feel that he is relatively unimportant and that personnel are more interested in his pathology than in him as a person. Adequate instruction based on individual needs and readiness is essential if the patient is to make a successful adjustment to hospitalization.

Statement of Problem

The problem of this study was to determine what information persons who have had laryngectomies feel should be included in the preoperative teaching for patients who are to have laryngectomies.

Purposes

The purposes of this study were:

1. To determine the content of preoperative teaching programs for patients facing laryngectomy.
2. To determine the timing of the presentation of this information, preoperatively or postoperatively in the teaching program.
3. To determine which topics should receive special emphasis.

4. To determine who was most helpful in providing the laryngectomized persons' instructions.

5. To obtain the laryngectomized persons' suggestions on ways to improve preoperative instruction for persons who will be undergoing laryngectomies in the future.

Background and Significance

The first successful total laryngectomy was performed in 1866 by T. H. Watson on a patient with laryngeal syphilis. The first total laryngectomy for cancer was performed on December 31, 1873, by Theodore Billroth (Weir 1973, p. 1161). Laryngectomy is now an accepted procedure for cancer of the larynx, and there are approximately 25,000 to 27,000 laryngectomees living in the United States today (International Association of Laryngectomees 1971).

The laryngectomized patient is no longer a rarity, and it is of utmost importance that the nurse accurately identify this person's needs during the adjustment to hospitalization and surgery. She must provide help that will be meaningful and appropriate to the patient's immediate and individual needs (Dumas 1963). Brophy (1968) states that death, disability, and disfigurement are anxieties of every person facing surgery. Carnevali (1966), in comparing her study with those done by Parker and Miller, identifies pain and discomfort, the unknown, destruction of body image, separation from normal environment, previous experience, death, disruption of life plans, loss of control, and finances as concerns of surgical patients.

Brophy (1968) states that a person reacts to his concerns in terms of many factors including his culture, perception, and social environment. Other variables are the person's past experiences, age, expectations, and level of understanding.

The issue of destruction of body image is particularly relevant to the laryngectomized patient: "The integrity of the face and special senses is a crucial element of body image and therefore the entire personality" (Nahum and Golden 1963, p. 1136). Nahum and Golden point out that because of this, disfigurement of the head and neck will have greater psychological effects than disfigurement of other body structures (p. 1136).

Another great concern of the patient scheduled for laryngectomy is the loss of his voice:

The possibility of losing one's voice can be terrifying, since the voice is our primary means of communication. It is through our inflections and the words we choose that we express our emotions--anger, affection, happiness, sadness. Melody, rhythm, and range add a very personal quality through which we can recognize a person even when we do not see him. After a laryngectomy, all these are lost. The patient must begin again and the voice he acquires is, at best, foreign to him and mechanical sounding. It is this the patient must face and this to which he must adapt (Pitorak 1968, p. 781).

The patient may fear recurrence of the cancer and a painful, lingering death. He may be concerned about how his family, friends, and co-workers will react to his laryngectomy or may doubt his ability to learn esophageal speech (Pitorak 1968).

Bird (1955) states that the nurse's most important contribution to the patient's psychological well-being is to keep open the patient's lines of communication, to see that he is properly informed of everything he should know, and that he does not receive misinformation. Of equal importance is the patient's open communication with relatives and the surgeon. When the patient can communicate freely with others, he can make his own requests and ask his own questions.

Bird (1955) lists three primary reasons for communication breakdown in the hospital. First, the great number of people working with the patient leads to fragmented, conflicting information from many sources. A second factor is the strangeness of the hospital environment, which increases the patient's anxiety. Finally, the patient's own anxiety decreases his intellectual functioning. Bird writes, "The total effect of all these factors is to leave the patient dazed and bewildered and to some extent mentally incompetent" (p. 685). In further discussing the emotional adjustment of a person facing surgery, Bird states:

A subtle but very definite change comes over people when they are faced with surgery. There is a tightening of self-control, an increase in bravery, a dulling of perceptions, an emotional apathy, a denial of illness, sometimes even a false cheerfulness. This reaction, which tends to bring about a state of calmness, may almost be regarded as a self-hypnosis, which, like an anesthetic, prepares the patient for the ordeal he must go through (p. 686).

Thus, the nurse can never assume that an outwardly calm patient is not experiencing emotional distress.

Bird lists anxiety, sadness, and danger as the most common emotional reactions to surgery, and he states that talking with the patient may be a very effective intervention:

If, by sitting down and talking with him, the surgeon or nurse can help the patient to put his hazy fears, his vague sadness, and his embarrassing anger into actual words, he will often feel much better immediately. In fact, if a patient can express his feelings accurately, it is almost impossible for him to become apathetic, depressed, or confused. Through the use of words, he gains control over those mental conflicts which until now have controlled him (p. 687).

Relieving the preoperative patient's anxiety and allowing him to participate in planning his care can make the hospitalization more comfortable and more conducive to a quick recovery and may even prevent complications of treatment. Mohammed writes, "The well-informed patient generally participates in tests, treatments, and self-care more effectively, more safely, and more comfortably than the poorly informed patient" (1964, p. 100). For example, a study of eighty-one gynecology patients by Dumas and Leonard (1963) showed that patients whose emotional distresses were not relieved before surgery had a higher incidence of postoperative vomiting than those whose distresses were relieved.

Healy (1968) conducted a study in which 181 patients were given extensive planned preoperative instruction (including deep breathing, turning, coughing, body mechanics, and explanation of specific procedures expected with the particular operation). Routine preoperative instruction from the regular

staff was given to 140 control patients. It was found that the specially instructed patients went on oral narcotics earlier and completely stopped receiving narcotics sooner than patients in the control group. Also, there was much less apprehension among family members of patients in the experimental group.

Egbert, et al. (1964) conducted a study of ninety-seven patients having elective intra-abdominal surgery. It was found that the forty-six patient experimental group (members of which were given individual preoperative instruction by the anesthetist in relaxation, coughing, deep breathing, and moving) used only half the amount of narcotics postoperatively as the fifty-one patient control group. Also, patients who were encouraged to relax, cough, deep breathe, and move by their anesthetists during the immediate postoperative period were considered by their surgeons to be ready for discharge from the hospital an average of two and seven-tenths days before the control patients.

Preoperative instruction is for the family as well as the patient. The family is particularly important to the patient as he faces the stress of surgery and may influence his recovery for better or worse. Ernstene discusses this:

1. When the patient is at first unwilling to submit to the degree of self-discipline necessary to secure the optimum response to treatment, the persuasion of a well-informed family may be of great help.
2. A clear explanation of the problem may spare the patient the well-intentioned annoyances of overly protective relatives

3. Family members who do not understand the nature of an illness are more likely to become dissatisfied, and this in turn may lead to criticism of the entire medical profession. A few minutes spent in explaining the patient's problem to those closest to him seldom fails to secure the cooperation and gratitude of the entire family (1957, p. 1113).

Bird also supports teaching patients' families: "The patient's welfare often depends on the cooperation of his relatives, and if they are confused, the patient may suffer" (1955, p. 686).

The nurse must tailor preoperative teaching of patients and their families to the specific needs of the individuals involved. Pitorak states, "Knowledge of the patient's position in his family and society will help personnel understand how this illness will affect him and what it may mean to him" (1968, p. 782). The patient must be considered in his totality and should never be made to feel that imparting information is the nurse's only concern in her interaction with him. To this end, and to gain information about the patient's needs and concerns, it is useful to encourage him to unburden himself as much as possible before beginning to teach him (Weaver and Williams 1963).

Dodge (1963) emphasizes the necessity of teaching content that the patient feels is important. Her study compared patients' feelings regarding the importance of being given medical information (regarding their case, symptoms, and treatment) with their physicians' and nurses' feelings about the importance of imparting the same information. She found that the patients consistently attributed more importance to

such information than did either their physicians or their nurses. She cautions that either lack of information when the patient wants it, or too much when he prefers to remain ignorant, may increase his anxieties and make him less satisfied with his care.

The importance of preoperative teaching has been discussed by many. Reasons it is not done, or is done inadequately, were identified in a study by Streeter (1953). Too little time to do teaching, lack of knowledge of teaching methods, and inability to teach so that the patient could understand were some of the reasons identified. Others were poor communication among health team members, lack of emphasis on teaching by nursing service personnel, and nurses' lack of responsibility in doing health teaching (p. 818).

Streeter gives five constructive suggestions for overcoming these obstacles. First, patient teaching should be specifically assigned, as drugs and treatments are assigned. Guides should be prepared to standardize teaching and provide content. Inservice education to instruct nurses in various teaching methods should be implemented. There should be records of what teaching has been done so that information given is consistent and not needlessly repeated. Finally, the use of visual aids and demonstrations can help make material easier for patients to grasp (Streeter 1953, p. 819).

In conclusion, it must be remembered that even the best planned and best presented health teaching serves its purpose only if the teaching is meaningful to the patient and if he

feels that his needs are being met. This can be determined only by validation with the patient (Weiler 1968).

Definition of Terms

The terms defined for this study were:

1. Laryngectomee - A person who has had a total laryngectomy.
2. Laryngectomy - Surgical removal of the entire larynx.
3. Nurse - A person licensed to practice as a registered nurse.
4. Preoperative instructions - Any information concerning the patient's diagnostic procedures, hospitalization, postoperative care, or rehabilitation that is given to him prior to performance of the surgical procedure.

Limitations

The limitations of this study were:

1. The sample is more representative of male attitudes than female because carcinoma of the larynx occurs about ten times more frequently in males than in females (Pitorak 1968, p. 218).
2. The individuality of each person's perception of his situation influences the concerns he expresses.

Delimitations

The delimitations of this study were:

1. Only laryngectomees who were at least three months postoperative were utilized in the study.

2. Subjects were age eighteen years or older
3. Subjects were able to read and write English.

Assumptions

The assumptions for this study were:

1. All persons scheduled for laryngectomy receive some information prior to surgery.
2. All persons scheduled for laryngectomy experience some anxiety prior to surgery.
3. A high degree of anxiety is a detriment to the learning process.
4. Teaching the patient what he wants to know is beneficial to the patient's postoperative course.

Summary

The emotional dilemma of the presurgical patient and specifically of the pre-laryngectomy patient and the benefits and effectiveness of preoperative teaching have been discussed in Chapter I. Reasons preoperative teaching is sometimes left undone or done inadequately were discussed, and suggestions for improvement were presented.

Chapter II presents a review of literature dealing with the general management of the laryngectomy patient, concerns of the surgical patient, and the principles, importance, and effectiveness of peroperative teaching. Chapter III presents a description of the questionnaire used to collect the data. Chapter III also presents an explanation of the development of the tool and the procedure for collection and

treatment of data.. Chapter IV contains a description of the sample population and presents a statistical analysis of the data obtained and a summary of significant findings.. Chapter V contains a summary of the study and the recommendations,, implications,, and conclusions resulting from the study..

CHAPTER II

REVIEW OF LITERATURE

Introduction

Preoperatively, the patient scheduled for laryngectomy is very much in need of psychological support and teaching to lessen anxiety as he contemplates the surgery itself and the changes that will result from it. In addition to discussing the general management of the laryngectomized patient, Chapter II will review the concerns of the surgical patient and discuss the means by which effective nurse-patient communication can reduce anxiety preoperatively. Principles of teaching will also be discussed, as this special form of communication is very important to the relief of anxiety preoperatively and postoperatively.

General Management of the Laryngectomized Patient

Total laryngectomy is a radical procedure involving complete removal of the larynx, the vocal cords, and the thyroid cartilage or Adam's apple. Usually the upper portion of the trachea is also resected, and the open end of the remaining portion is brought out to the anterior portion of the neck and sutured. This becomes the permanent stoma through which the patient will breathe (Bouchard and Owens 1972). A laryngectomy tube may be used for a week or two postoperatively to

maintain the size of the stoma. It has recently been demonstrated that there is less reaction and a better stoma in the patient who does not wear the tube at any time. However, it is usually necessary to use a tube with patients who are overweight or have short necks, as the skin of the neck tends to fold down over the tracheostomy and partially obstruct it (Saunders, et al. 1968).

The only respiratory organs in use after laryngectomy are the trachea, the bronchi, and the lungs. Because the air passes directly into the trachea without being warmed and moistened by the respiratory mucosa, the tracheobronchial tree secretes excessive amounts of mucus for compensation. The copious respiratory secretions that characteristically occur immediately after formation of the stoma are a threat to the patient's life. They may clog the tracheostomy and cause death by asphyxia (Smith, Germain, and Gips 1971).

The laryngectomized person can no longer inhale or exhale through the nose or mouth, since the trachea no longer connects with the nose and mouth. Because the patient no longer breathes through his nose, neither smell nor taste are as keen as before surgery. Also, since the stoma is open and cannot prevent water from entering the lungs, the laryngectomized person cannot swim. He cannot sing or laugh aloud; and, because he can no longer lock his breath in, he cannot lift heavy loads or strain hard (International Association of Laryngectomees 1971).

Preoperatively, the patient should be informed of the limitations that will result from having a total laryngectomy and be allowed to discuss his feelings about the surgery. The patient will be worried about many things and may face the operation with terror and despair. Bouchard and Owens (1972) state that the most helpful role of the nurse at this time is to initiate positive, goal-oriented thinking on the part of the patient. It is psychologically comforting to the patient and family if the nurse emphasizes the abilities rather than the disabilities that will result from curative treatment.

Walsh (1972) states that a pre-hospital family conference with the physician may be helpful in launching long-term rehabilitation. The purpose of the conference is to get the patient past his fears of death and to focus on the options and decisions he will have postoperatively and thereafter. During the conference the physician stresses the high probability of a full return to the patient's usual life style. It is emphasized that with the speech training available today, most laryngectomees will be able to speak again. The type of operation selected by the surgeon, the function of the stoma and its effect on respiratory physiology are discussed. Finally, the physician discusses the patient's voiceless condition in the immediate postoperative period and plans with the patient and family to provide a means of communication during that time.

The importance of spending time with the laryngectomy patient preoperatively is illustrated by Nahum's and Golden's study (1963) of twenty-five laryngectomized patients. They found that the determination of certain characteristics of the patient preoperatively was useful in anticipating and managing problems postoperatively. Some characteristics conducive to a favorable postoperative course were identified as satisfactory surgical or medical experiences in the past, prior history of favorable relations with physicians, and the ability to verbalize problems and fears with no inclination to worry incessantly, to brood unnecessarily about concerns, or to try to keep problems inside himself. Other favorable characteristics included generally good relationships with other people, ability to adjust adequately to stressful new experiences, security of life situation (including family and job), and strength and adaptability of the personality structure (p. 1138).

As the physician and nurse evaluate the patient's psychological resources preoperatively, the patient's specific concerns and needs and readiness for teaching may also be evaluated. Pitorak (1968) lists eight areas of information about which the pre-laryngectomy patient and his family need to be informed preoperatively. These include physiologic changes and limitations that will result from the operation; the feeding tube, if one is anticipated; intravenous fluids; the intensive care unit, if he is to be cared for there after

surgery; and the Hemovac or other drainage tubes to be used. Other areas are methods of communication available to him immediately after surgery such as magic slate, cue cards, or sign language; where the family will wait while the patient is in surgery and when he may see them; and postoperative emotional reactions the patient may have such as depression, apathy, feelings of helplessness, suicidal feelings, or resentment. The family will be much better able to respond lovingly and supportively to the patient in the face of complaints, demandingness, or hostilities if they understand the reasons behind these reactions. It may be helpful to tell the patient and family about the International Association of Laryngectomees and about the facilities for speech retraining to help them look forward toward rehabilitation. They may want to visit with a laryngectomee at this point; however, this may be postponed until after the operation (p. 782).

In addition to preparation for the postoperative course, the patient and family need to be prepared for the medical evaluation and treatments that precede surgery. This may include radiation for shrinkage of the tumor area, if the laryngectomy is necessary to remove malignancy (Saunders et al, 1968).

The preoperative preparation of patient and family is designed to prepare them for cooperation and participation in immediate postoperative care and rehabilitation after laryngectomy. The main objectives of the immediate postoperative care of the laryngectomy patient are to maintain a patent

airway and to allay the patient's apprehension. Because of the copious respiratory secretions, suctioning may be necessary as often as every five minutes at first. If a tube is used to keep the tracheostomy open, the inner cannula is removed and cleaned as often as necessary. The outer cannula of the laryngeal tube is changed the first time by the physician. Thereafter, the nurse may be designated to perform this procedure unless special problems are involved. The frequency of changing the outer cannula depends on the patient's condition, time required for use of the tube, type of secretions, and extent of the surgery. Humidity is provided to keep secretions from drying and thickening (Bouchard and Owens 1972). Preoperative and postoperative explanations of tracheostomy care; the nurse's efficiency and skill in performing care; constant attendance in the immediate postoperative period; and teaching the patient as soon as possible to do his own tracheostomy care are means of decreasing anxiety in the patient and family. The patient's most effective defense against the fear of a blocked airway is his ability to care for himself (Smith, Germain, and Gips 1971). Bouchard and Owens (1972) state that initial recovery and rehabilitation are greatly facilitated when the patient has been instructed and permitted to care for his own needs as quickly as possible (p. 160).

A closed suction drainage system (Hemovac) may be used after the laryngectomy. The Hemovac keeps the wound dry, evacuates blood, and sucks skin down tightly so that no dressings

are needed postoperatively except the one around the tracheostomy tube. The suction container is emptied twice a day and resealed to continue suction. Approximately 70 to 120 ml. of serosanguinous drainage are expected in the first day of suctioning, 30 to 50 ml. the second day, and 0 to 30 ml. the third day (Saunders et al. 1968, p. 248).

During surgery to remove the larynx, the esophagus is separated from the trachea and the latter is sutured to the skin to form the stoma through which the patient will breathe. Because it would be undesirable to contaminate the healing esophageal suture line with oral feedings, a naso-esophageal catheter is passed by the physician after the operation. After the initial insertion by the physician, the nurse removes and passes the tube. The patient is taught to pass the tube himself and to assist with the feedings as soon as he is able. Liquid feedings are given per tube every three hours or so. The patient may begin oral feedings after about seven days, when the incision has healed (Saunders et al. 1968).

As the patient begins oral feedings, he begins to develop the ability to belch. This action at first is spontaneous and later becomes deliberate. The speech pathologist then progresses with the patient in an attempt to turn these explosions of air into intelligible speech that is as close to normal as possible (Brunner et al. 1970).

The nurse must be prepared to deal with the postoperative psychological implications of the laryngectomy as well as the physical implications. Searcy (1972) states that some

depression in the newly laryngectomized patient is unavoidable:

After all, we have done a lot to this person. We have slit his throat, ripped out his voice box, caused him pain and deformity, and possibly caused him to lose his job or his status in life. Later he will realize that we have saved his life. But that does come later, and we must deal with first things first (p. 2).

Bouchard states that decreased acuity of smell and taste (because the person no longer breathes through his nose) contribute to depression, anger, bitterness, withdrawal from others, and loss of appetite--all psychological crises associated with sensory deprivation (Bouchard and Owens 1972, p. 169). Searcy (1972) states that the best way to prepare the patient and family for the patient's periods of depression is to discuss the subject frankly during hospitalization. They can be assured that feelings of anger and frustration are normal. Also, the patient can be referred to a local chapter of the International Association of Laryngectomees or to the national office: "A laryngectomee who has mastered speaking can provide much-needed encouragement to the new laryngectomee who is just starting to travel the long and lonely road back to oral communication with others" (p. 8).

Though learning to speak again can be a frustrating and difficult task, it is very important to the psychological and social wellbeing of the laryngectomee. Snidecor et al. (1969) states that speech can mean the difference between holding or getting a job and being permanently unemployed (p. 11). Gardner (1966) identified a consistent relationship

between the extent to which patients kept their friends and their ability to talk. Speech was regained by 83.4 percent of patients who kept all their friends and was regained by only 30 percent of those who lost all their friends (p. 61).

Gardner writes:

It thus appears that successful speech was an important asset in retaining friends, and some patients regained speech in spite of their efforts to avoid their friends. However, it is seen also that the sheer experience of keeping their friends was an important factor in regaining speech (p. 61).

Saunders, et al. (1968) states that laryngectomized persons feel grossly handicapped until they develop an alternative mode of communication: The person may be repeatedly frustrated and experience feelings of doubt about his personal worth when his ability to speak is impaired. "He may become irritable, discouraged, and depressed and ultimately withdraw from those whose fellowship he needs" (p. 244).

After a total laryngectomy has been performed, the patient is unable to talk until he (1) learns esophageal speech, (2) uses an artificial larynx, or (3) has one of the newer surgical techniques performed. For example, implantation of a pseudoglottis may be done at the time of initial surgery or thereafter if he finds it impossible to learn esophageal speech (Bouchard and Owens 1972, p. 166). About 75 percent of laryngectomized patients master some technique of air intake and develop alaryngeal, esophageal, or pharyngeal voice without resort to any electronic or mechanical device (Saunders, et al. 1968, p. 244). The International Association of Laryngectomees

favours esophageal speech over the use of mechanical devices, which are conspicuous. The person must hold an apparatus to his neck and operate it by hand, thus drawing attention to his handicap (International Association of Laryngectomees 1964, p. 3).

Mastery of alaryngeal speech is dependent upon a determination to succeed, a willingness to practice constantly, and an effort to cultivate an attitude of relaxation that will permit optimal learning of a new muscular skill through patient practice. Motivation is essential to this process, the goal of which is to develop serviceable, understandable, connected esophageal speech. Three or four months are usually required to achieve this goal (Walsh 1972).

Difficulty in learning esophageal speech may be due to declining motivation, interpersonal problems which interfere with concentration, extensive surgery, or advanced age. Persons who have not learned to speak within sixty to ninety days after surgery, or those who choose not to try to learn, may benefit from some type of artificial larynx. The artificial larynx may also be used as an adjunct to esophageal speech therapy, particularly during the early sessions. Some laryngectomees have learned esophageal speech after using an artificial larynx for weeks, months, and even years (Walsh 1972, p. 16).

The laryngectomized person may benefit socially and psychologically by affiliating with a local group of laryngectomees in a Lost Chord Club or New Voice Club. These clubs

are sponsored by the local chapter of the American Cancer Society. They provide voice-teaching services, exchange of ideas regarding management of laryngectomy problems, and social activities. Moral support and encouragement may be derived from associating with others with a similar disability who have regained social confidence and emotional security. Persons in these clubs believe that rehabilitation begins with acceptance of self; others, in turn, then learn to accept. This philosophy includes the idea that one should not spend excess time grieving for the lost body part but rather be thankful to be alive and make changes in living patterns that contribute to a sense of well-being and normal comfort for him and those about him (Bouchard and Owens 1972, p. 168).

Because of the permanent tracheostomy, the laryngectomized person will need to make some changes in the performance of normal activities. There will have to be some provision for humidification at the stoma to prevent crusting and scaling. Baths or showers, commercial humidifiers, or a pan of water on the stove or radiator may accomplish this purpose. During bathing and showering, the laryngectomee must keep water from entering the stoma (Bouchard and Owens 1972)

The stoma should be covered at all times to protect the orifice from dust, lint, insects, and sudden changes in temperature. The person's mode of dress can effectively camouflage the stoma, and a stoma shield may be worn under clothing as added protection (Bouchard and Owens 1972).

The laryngectomized person must learn to control emotion and to exercise moderation in physical activity, because strong emotion or fatigue makes esophageal speech difficult. Smoking should be discontinued. The laryngectomee should have a Medic Alert card and bracelet to inform rescuers of his specific needs in case of an emergency (Bouchard and Owens 1972).

The laryngectomee will have interpersonal problems during the initial period of adjustment. Speech will be soft in volume compared to a natural voice. The hearing difficulties of middle-aged spouses and friends can compound problems in adjustment. The vocal spouse may assume the dominant role, thus upsetting a long-standing relationship. The patient may be avoided by family and friends, who may be repulsed by the tracheostomy and esophageal speech or who may be uncomfortable being with the laryngectomee as he works through the grief process for the changed body image. The laryngectomee may tend toward withdrawal. The Lost Chord or New Voice Clubs are especially helpful in preventing this (Walsh 1972).

Noisy stomal breathing or stomal odor may lead the spouse to refuse to engage in intercourse. An actual decrease in libido on the part of either the laryngectomee or the spouse may also occur. Because of these various problems, it may be wise for the physician to hold joint conferences with husband and wife. Teenage or adult children might also be included (Walsh 1972).

The rehabilitation of the total laryngectomee requires continued encouragement, persistent instruction in esophageal speech, regular follow-up examinations, and in some cases psychotherapy. An enormous emotional and physiological victory has been achieved by the laryngectomee who has accepted his state maturely and developed esophageal speech. The family and physician should recognize this, and should consistently nurture a pride in the patient for such an accomplishment (Barton 1965, p. 1414).

Concerns of the Surgical Patient

Surgery is stressful to any patient, and the degree of manifest anxiety varies from person to person. The patient may be far from home and separated from family and friends. The unfamiliar sounds, sights, language, and people of the hospital environment may be quite threatening. Also, the patient faces many uncertainties such as whether or not the operation will be successful and what impact it will have on his family and friends. The patient may be concerned about revealing secrets or losing control of his bowels or bladder while under anesthesia. There may be fear of disorientation following surgery. Mutilation and death are among many other areas of concern to the patient (Powers 1967).

Surgery is particularly stressful for certain patients. Included in this category are patients with questions they think are too frightening to ask, those undergoing psychologically stressful operations such as surgery for cancer or heart disease, and those who have personally or vicariously had bad

experience with surgery in the past (Brownsberger 1965).

Senile persons, children, and persons who do not speak English may find hospitalization especially stressful because they are totally unprepared to deal with it.

The person scheduled for laryngectomy is subject to all these fears. This patient may be particularly concerned about his diagnosis (cancer being the usual indication for this surgery), mutilation, and loss of voice (Saunders, et al. 1968). He may express anxiety in a number of ways while awaiting surgery. Characteristic manifestations of anxiety reflect a person's individuality and may include withdrawal, hyperactivity, talking and joking excessively, striking out verbally or physically, complaining, and crying (Brunner, et al. 1970).

Brownsberger (1965) lists eight "rights" of every hospital patient that may provide assurance and help ease the anxiety of adjustment to hospital routine. These include gentleness of touch and voice, expert nursing care, dignity, and privacy. Other rights are explanations of procedures, personalized care suited to the patient's needs, presence of a nurse when he wants one, and honest answers to his questions (p. 59-60).

Francis and Munjas (1968) state that anxiety is an energy which results from conflict between the personality structure and the environment. Anxiety is perceived subjectively by the conscious portion of the personality as diffuse apprehension, tension, or vague uneasiness. Its presence is

inferred from its effect on behavior, attention, learning, and perception. The exact conflicts may be unknown to the individual, but they always threaten his existence or his being as he has come to know it:

Anxiety is the ultimate expression of being a human rather than a god. When anxious, one is brought face to face with weaknesses, vulnerabilities, limitations, and mortality. Anxiety is not an expression of a circumscribed illness but is an expression of something that man alone experiences--awareness of his finiteness. It is an awareness of the fact that he will indeed get sick, grow old, become helpless, and die. Until that time, however, man has repeated opportunities to achieve higher and higher levels of functioning. Anxiety is the thrust of life, but it can also be a burden which the nurse can help another bear (p. 27).

Because it is an energy, anxiety must go somewhere and do something. It may be acted out by walking, talking, crying, etc. It may be converted into bodily symptoms such as a stress ulcer, anorexia, insomnia, or muscle tension. A third alternative is that it may be converted into behavior or behavioral patterns through the use of defense mechanisms. The intensity of the bodily symptoms, the nature of the acting out, and the character of the behavioral patterns are the bases upon which the nurse can speculate about the degree of anxiety being experienced. The nurse must be alerted to the possibility of anxiety when she encounters any atypical behavior or exaggerated response (Francis and Munjas 1968).

The nurse's goals in providing psychological comfort are to help the patient maintain a sense of identity and control while achieving feelings of safety and comfort. She

seeks to alleviate the patient's anxiety and to help him tap his own reserves of physical and mental health to tide him over the crises he faces (Magill 1967, p. 1249). In order to do this she must first establish rapport with the patient and then work with him to identify his needs and resources (Francis and Munjas 1968).

Both the nurse on the unit and the nurse in surgery are faced with the problem of establishing an initial rapport with the patient and assessing his needs related to the stressful situation of surgery. Brophy (1968) writes:

If the initial communication with the patient is inadequate, there is usually no time in the pre-surgical routine for a second encounter to re-establish what the true needs are (p. 44).

Dumas (1963) lists steps to be taken in learning and meeting patient needs: (1) the nurse explores with the patient her observations of his behavior to find out if he is in distress, (2) she explores with him the nature of his distress to determine what will be necessary to relieve it, (3) she begins an appropriate course of action designed to meet these requirements, and (4) she validates with the patient whether this course of action relieved the distress. If not, the process begins anew (p. 53).

The most important determinant of success in this special process is perhaps the nurse's skill in using specific interviewing techniques. Duman (1963) states that her inquiries should be accepting, open-ended, and serve to help the patient verbalize his true feelings. Carnevali (1966) found

it useful to ask the patient to put himself in the place of the nurse, and then indicate things that would concern someone else facing similar surgery (p. 1537). The nurse's behavior throughout the interactions must reflect genuine interest, permissiveness, receptiveness, and empathy. Her responses must be appropriate to the situation and should convey that her specific aim is to help her patient, and she must be nonjudgmental in analyzing the information obtained (Dumas 1963).

The use of good interviewing techniques can foster effective interpersonal behavior. Jourard (1959) lists the following as conditions for effective interpersonal behavior:

1. The person must have a clear-cut aim or objective in his transaction with the other.
2. The person must have an accurate concept of the other as he now is.
3. The person must have the ability and the freedom to behave toward the other person in ways which will actually achieve the aims of the transactions (p. 1568).

Dumas (1963) states that the nurse must be aware of the reciprocal nature of behavior--that her own responses influence the responses of patients and vice versa. The nurse must attempt to understand the patient's behavior through step by step exploration with him for pertinent data that will clarify the meaning of his behavior.

Larson and Jourard emphasize the importance of empathy in the effective nurse-patient relationship. Jourard (1959) writes that empathy is an important means of knowing patients. Larson (1961) states that, through empathy, the nurse is able

to understand and accept the patient's actions and feelings. As the patient begins to feel understood and accepted, the nurse can help him verbalize his fears and emotions in a way that will lead to a healthier perspective (Larson 1961).

Reassuring the patient and decreasing his anxiety are important in providing psychological comfort to the patient whose needs have been identified in the context of an empathetic nurse-patient relationship. According to Knowles (1959), the patient's trust of the nurse is an important factor in achieving the ultimate goal of reassurance. She states that the first step in reassurance is the establishment of a feeling of trust so that the patient can confide in the nurse: "One of the ways the nurse can reassure the patient is to listen to him and let him know that she cares how he feels" (p. 835). Gregg (1965) states that helping the patient to help himself is an important adjunct to empathy in reassuring the patient: "Reassurance is experienced by a patient when he finds that he is respected and understood by the nurse who assists him to recognize and develop his own resources and thereby restore his confidence in himself." (p. 136).

Francis and Munjas (1968) state that the nurse should acknowledge perceived anxiety in a patient and seek validation of her perception. In acknowledging, the nurse shares her own perception or intuitive feeling about the patient with that patient. Acknowledgement suggests to the patient that the nurse is aware of and interested in him (p. 79).

Just as it is necessary for the nurse to validate with the patient what anxiety, if any, exists, it is also important for the patient to validate the effectiveness of nursing interventions to relieve anxiety. Carnevali and Parker did studies comparing preoperative patients' and their nurses' perceptions of (1) the patients' concerns and (2) the effectiveness of different nursing interventions to relieve the anxiety. Patients indicated that the most effective means of anxiety relief was the nurse's reassurance and friendliness. Other means of relief, in decreasing order of effectiveness, were as follows: nursing skill and competence, concern and interest in the patient, willingness to listen, and decreasing the unknown (providing knowledge) (Carnevali 1966). Nurses, however, listed decreasing the unknown as the most effective means of relieving anxiety. They then listed the following interventions in decreasing order of effectiveness: reassuring the patient that he had been wise in deciding to have treatment and that he had competent medical care; listening to the patient; showing concern and acceptance, conveying a feeling of security through nursing competence; and diversion (Carnevali 1966).

Skipper, Mauksch, and Tagliacozzo (1963) carried out a study to investigate the patient's point of view concerning the function and meaning of his communications with those who were responsible for his hospital care. According to those patients, there are two primary meanings of communication with hospital personnel: (1) to secure information and (2) to provide interpersonal contact. The patients stated that they

desired information about the nature and extent of their illness, technical medical procedures, and the general social organization of the hospital. Receiving this information (1) tended to alleviate the patients' fear and anxiety about what was going to happen to them; (2) assisted them in defining and adapting to the expectations of hospital personnel; and (3) helped to meet their need for a feeling of safety in the hospital. The investigators write, "Interpersonal contact tended to stem their feeling of loneliness, aided them in defining their 'rights' in the hospital, and helped to meet their need for personalized care" (p. 17).

Other findings from the same study showed that the patients' stereotyped nurses and physicians as being very busy and overworked. Some patients felt morally obligated not to take the staff's time from sicker patients; others feared they would incur the staff's hostility if they took too much time (p. 18).

Patients complained that nurses rarely gave satisfactory answers to questions about illness, and concluded that nurses had no authority to disclose this information. Physicians were criticized for their too-short visits, which left little time for patients to ask questions and which facilitated patients' forgetting questions they wanted answered. The difficult language used by physicians in answering questions, and the perceived great social distance between patient and physician, were other barriers to effective communication.

Some patients felt social distances between themselves and Caucasian nurses but not Negro nurses. Thus, Negro nurses were more likely to be approached for information than Caucasian nurses (the patients in the study were all Caucasian) (Skipper, Mauksch, and Tagliacozzo, p. 18).

The patients' general feelings of futility in the atmosphere of the impersonal, bureaucratic nature of the large hospital were another barrier to effective interpersonal communication (Skipper, Mauksch, and Tagliacozzo, p. 18).

Wilson (1965) writes:

The patient comes unbidden to a large organization which awes and irritates him, even as it also nurtures and cures. As he strips off his clothing, so he strips off, too, his favored costume of social roles, his favored style, his customary identity in the world. He becomes subject to a time schedule and a pattern of activity not of his own making. The patient's expectations are relatively vague; most of the initiative in social intercourse passes to the staff, which is exceedingly ready to exercise it in the service of expert knowledge and mundane convenience (p. 236).

Many different staff persons enter and leave the room during the course of a day. Each has a small, sharply defined duty to perform. With nursing so subdivided among many persons and so technically oriented, it may be almost impossible for a particular patient to find a nurse with whom he can relate. The patient may be exhausted and annoyed by the constant coming and going, and, instead of feeling less lonely, feel psychologically deserted.

Communication is necessary for the patient to cope successfully with the crisis of hospitalization and surgery,

and barriers to communication impede the coping process. The patient must take a closer look at the threatening situation in order to evaluate it, to become aware of feelings about the experience, and to be able to express these feelings. It is necessary for health team personnel to provide a means for the patient to look consciously at problems and to get new, relevant information and help the patient become aware of and express feelings about illness and hospitalization (Langlois and Teramoto 1971, p. 336).

Principles of Preoperative Teaching

Teaching may be broadly defined as any interpersonal influence aimed at changing the way in which other persons can or will behave (Redman 1968, p. 6). It may also be thought of as any activity by which the teacher helps the student to learn or as a special form of communication which is structured and sequenced to produce learning. Guidance, counseling, and support are functions related to teaching. Their focus is on the development of attitudes and feelings, whereas the most traditional focus of teaching has been intellectual growth. Training has been thought of as associated with psychomotor growth. However, these distinctions are by no means clear cut (p. 7).

Redman states that the general goal of health teaching is to help the individual to develop his optimal health potential. General goals for all patients might be as follows:

- (1) to participate effectively in care and cure;
- (2) to adjust

to realities of the health situation; (3) to make rational decisions about health; and (4) to feel satisfaction in working toward health. Against this background knowledge of general goals of health teaching, the nurse assesses the teaching needs and readiness of a particular person, the philosophy of his physician, and the treatment plan being instituted. The patient's own objectives--what he wants to learn--are particularly important. Taking these factors into account, it is possible to develop a set of objectives that are likely to be obtainable (Redman, p. 54).

Teaching the patient preoperatively can help the patient and family begin to accept a share of responsibility for the patient's successful convalescence:

Primarily, preoperative teaching encourages the patient and his family to understand that, as individuals, patients are responsible for their own convalescence and rehabilitation. We support them; we help them; we alleviate fears and apprehension; but, most important of all, is the way they feel and the attitude that we have engendered in them (Healy 1969, p. 40).

Francis and Munjas (1968) write that allowing the patient to participate in his care leads to feelings of usefulness and provides constructive outlets for anxiety (p. 59). Tryon (1965) emphasizes the fact that the patient's participation in planning his care allows him to become a partner in planning for his recovery, rather than merely the object of the health workers' ministrations:

When the patient participates in planning for his care, he assumes some responsibility for the outcome or the effect of that care. When he participates, he is able to use more effectively the health resources

offered him. When a particular course of action is suggested, he knows why it has been suggested and is able to express his feelings about it. If he questions the advisability of a particular procedure, his reasons are heard and given consideration. Care is administered with the patient's understanding and consent. He is not merely the object of care and treatment, but is a partner in planning for his recovery (p. 126).

Vincent (1971) states that there must be complementarity of expectations if patients are to be expected to comply with health workers' directives. The patient must accept the health workers' authority as legitimate. Also, there must be a reciprocal orientation of the individuals in the situation to the outcome of the expected behaviors. Vincent states that the problems of noncompliance are increased when the patients' expectations are not met (p. 516).

By decreasing the patient's anxiety and increasing his participation in and responsibility for his health care, preoperative teaching can reduce the incidence and severity of postoperative complications. Schmitt and Wooldridge (1973) studied the influence of psychological preparation for surgery on the postoperative course. Twenty-five experimental patients participated in a small group session at which they discussed their concerns and fears and received information about what to expect and how they could facilitate recuperation. The experimental patients were compared with a randomly selected matched control group of twenty-five patients who underwent similar procedures, but received only the routine care. Physiological, verbal, and interactional variables were measured.

The research hypothesis was supported: the extra preparation (in the small groups) increased patient participation, decreased tension and anxiety, and led to a more rapid post-operative recovery. Experimental patients reported that they slept better and experienced less anxiety the morning of surgery; they recalled more facts about their experiences on the day of surgery, and their recollections less often involved unpleasant and fearful images; they experienced less operative urinary retention, required less anesthesia; they returned more rapidly to oral intake, required less pain medication, and were discharged sooner than patients in the control group (Schmitt and Wooldridge 1973, p. 108).

Schmitt and Wooldridge state that the information provided to a patient should be information that is important to the patient rather than the technical information which seems so important to the hospital staff (p. 108). In studying the information patients wished to receive about diagnostic procedures, Dlouhy, et al, (1963) identified the following as the items of information most important to patients: (1) the reason for the procedure; (2) how the equipment used would affect the patient; (3) what the patient can do to help with the test; (4) competency of the person who performs the test; (5) results of the test; and (6) whether or not more tests will be necessary (p. 267). This study provides further evidence that patients are interested in actively working with the health team as well as in themselves as the object of various procedures.

In addition to setting up objectives prior to teaching, the nurse must assess the patient's anxiety level and readiness to learn. While mild anxiety facilitates learning, states of no anxiety (in which the patient is not motivated to learn) or states ranging from moderate anxiety to panic (in which perception is decreased) are detrimental to the learning process. Mild anxiety is desirable because it makes the senses more alert, increases attentiveness, and provides for an easier and more rapid solution to problems. It enables relationships to be seen more easily, and the patient is less focused on himself. The patient with mild anxiety will want to help with his own care and possible with the care of others; his dependency needs have been or are being met. Learning normally produces a mild level of anxiety because it requires change in beliefs and behavior (Redman 1968, p. 41). The nurse may attempt to increase slightly the level of anxiety in some patients or to decrease anxiety in others to bring them to the point at which their learning is best facilitated (Francis and Munjas 1968, p. 24).

Readiness to learn includes factors of motivation (emotional readiness), experiential background, and ability to learn. Certain levels of readiness can be anticipated by knowledge of the patient's patterns of health beliefs and behavior, and the psychosocial impact of illness on the patient and his family. Assessing readiness requires of the nurse an understanding of the aim of health teaching and skill in gathering and validating information, by means of informal conversa-

tion, interview, observation, and health records. General principles of motivation should be considered in assessing readiness and in planning learning experiences: (1) Items in the environment can motivate the learner by capturing his attention and curiosity; (2) Incentives motivate learning; (3) Internal motivation (in which the person believes the goals are useful to him, or simply enjoys learning) is more self-directive and longer lasting than external motivation, which must be repeatedly reinforced by praise or concrete rewards; (4) Learning is most effective when the learner feels a need to know something; (5) Motivation is usually enhanced by organizing the material to be learned in the way that makes the information meaningful to the learner and (6) Success is more predictably motivating than is failure. Redman emphasizes that none of these techniques will produce sustained motivation unless the goals are realistic for the learner (Redman 1968, p. 41).

The objectives of instruction for a particular patient, the patient's readiness to learn, and the factors which motivate him will determine the type of teaching to be done. General preoperative teaching may be divided into three parts: (1) explanation of the specific operative procedure; (2) interpretation of routine preoperative tests and hospital routines; and (3) preparation for the immediate postoperative period, particularly dwelling on those measures in which the patient must fully cooperate (Weaver and Williams 1963, p. 82). Patients should also be prepared for the return home by

teaching them and their families about home care, rehabilitation, and useful community health resources; and they should be taught principles of preservation of health and prevention of disease (Streeter 1953, p. 818).

Preoperative teaching may be structured or unstructured. For purposes of their study, Lindeman and Van Aernam (1971) defined structured preoperative teaching as the registered nurse following a lesson plan previously established and administratively approved for content, method, and visual aids and presented at a specific time and place as designated by the nurse. Unstructured teaching is defined as "the registered nurse teaching what, how, and when she decides" (p. 321). Their study showed that structured, as opposed to unstructured, preoperative teaching significantly increased the adult surgical patient's ability to cough and deep breathe and that such instruction significantly reduced the average length of hospital stay (p. 328-330).

Patient teaching may be done in groups (1) if this is an economical way to teach a number of individuals at one time and/or (2) if the experience of being part of a group is the most likely way to meet the objectives of the teaching (Redman 1968, p. 93). Langlois and Teramoto (1971) write that group work enables one teacher to reach many patients at one time, and can produce favorable results with several patients in less time than a one-to-one relationship can accomplish with an individual patient (p. 336). Lindeman performed a comparative study of the effect of individual and group preoperative

teaching of deep breathing, coughing, and bed exercises on postoperative ventilatory function, length of hospitalization, postoperative need for analgesia, and length of learning time. It was found that group preoperative teaching was as effective as individual preoperative teaching as measured by postoperative ventilatory function, length of hospital stay, and the number of analgesics administered postoperatively. Also, patients who attended the group classes were able to perform the exercises correctly after a significantly shorter length of learning time than those who were taught individually. Group preoperative teaching was therefore more efficient for these patients than individual teaching (p. 207). Thaxton (1962) writes that information may take on more meaning for group members as they share their own experiences and feelings and react to the feelings and experiences of others in the group (p. 112).

In group or individual teaching, written material and audiovisual aids may be very useful in clarifying instructions for the patient. However, the nurse should choose written materials carefully and go over them with the patient to make sure that he understands the information. Mohammed (1964) writes:

The results of nonselective use of these [printed materials] can range from a total lack of communication, to a partial understanding which creates unnecessary fears and hazards, to a failure to capitalize on a patient's self-teaching ability (p. 100).

Mohammed found in her study of 300 ambulatory adult diabetic patients at the University Hospital of Cleveland Diabetic Clinic that 43 percent were unable to profit from any written health materials, and that many others cannot profit from those currently in use. The patients' average age was 57.5 years, and the average education was 6.8 grades completed. They were tested at fourth, sixth, and eighth grade reading levels (at which most health literature is written) (p. 100-108). This illustrates that visual acuity, proficiency in the language, and education are important considerations in determining the appropriateness of written materials. Written instructions are advantageous in that they help establish a more consistent pattern of teaching, and that verbal directions are sometimes forgotten or recalled only vaguely (Tollefsrud 1956, p. 1009).

When motor skills are being taught, practice must be considered a part of the teaching plan. It may begin with the learner's redemonstrating motions immediately after the teacher does them. Further practice should be done in a setting like that in which the skill will be performed, with the teacher supervising enough to provide feedback for a correct performance and to stimulate motivation if necessary (Redman 1968, p. 98).

Evaluation is the final step in the teaching-learning process, but it is forward-looking in that its message redirects activity. How well the objectives have been met is determined by the patient's answers to oral and/or written questions, his

demonstrated proficiency and confidence in performing a task, the questions he asks, or by other means. The learner should be able to transfer knowledge and skills beyond the context of the instructional situation to other situations that the objectives describe or suggest. The learner should state his assessment of his progress, and similarities or dissimilarities with the teacher's assessment should be discussed. When differences of opinion persist, the nurse must retain her responsibility for making the final decision (Redman 1968, p. 148-149).

Evaluation both during and at the conclusion of a teaching-learning segment is a summation and interpretation of the results of learning measurement. It provides a time for analysis of lack of progress and for redirection of activities. It also reinforces successful behaviors of both learners and teachers (Redman 1968, p. 150).

If the goals are not being met, several possible errors in the teaching-learning process must be considered. Errors in assessing readiness and setting goals include: (1) the learner might not have accepted the goals as his own; (2) the goals may not have been appropriate; (3) the goals may not have been clearly understood by both teacher and learner; and (4) the goals may not have been broken into sufficient intermediate steps to provide guidance. Errors in teaching include: (1) using teaching materials unsuited to the patient's ability; (2) lack of frequent evaluation during the teaching; (3) teaching for too short a time to permit thorough learning; (4) lack

of sufficiently valid and reliable data to form an adequate basis for the evaluative decision; and (5) failure to obtain baseline data for measuring change (Redman 1968, p. 153).

In summarizing, learning demands a cooperative teacher-learner relationship. The objectives of teaching should be mutually established and understood, and teaching should progress according to the needs and readiness of the student. The outcomes of the learning process should be evaluated by both teacher and learner, and appropriate changes should be instituted as necessary if goals are not being met.

Summary

Chapter II is concerned with a review of the literature regarding (1) the general management of the laryngectomized patient, preoperatively through rehabilitation; (2) concerns of the surgical patient and the means and importance of decreasing anxiety preoperatively; and (3) principles of teaching patients. The following bases for preoperative teaching have been explored: (1) laryngectomy is a particularly traumatic surgery because it involves loss of natural voice as well as changed appearance; (2) moderate to severe preoperative anxiety is detrimental to the patient's postoperative recovery; and (3) preoperative anxiety can be decreased and postoperative recovery and rehabilitation enhanced by teaching the patient and relieving his anxiety preoperatively.

CHAPTER III

METHODOLOGY

Introduction

This was an exploratory descriptive study conducted for the purpose of determining what information persons who have had laryngectomies feel should be included in the pre-operative teaching for patients who are to have laryngectomies. The primary aim of descriptive research is to provide a factual, descriptive picture of a given situation. Exploratory studies are those descriptive studies that are undertaken solely to throw some light on an area or to generate hypotheses for later investigation in an explanatory study (Abdella and Levine 1965, p. 425).

This study is an example of nonexperimental research because it does not involve a true experiment. True experimentation involves the creation of some new situation, which does not now exist, and the description and evaluation of the consequences of the problem (Fox 1966, p. 198). Nonexperimental research cannot usually establish causal relationships with the same degree of confidence that is possible with the experimental method and is therefore less useful than the experimental method in the development of new theories, ideas, and principles. Also, the nonexperimental approach is not

readily usable for validating a newly developed product, program, or procedure. However, there are several advantages to the nonexperimental approach. Such research is generally less expensive to conduct and can usually be completed in less time than experimental research. Nonexperimental research findings are generally more representative of a larger target population than are findings from experimental studies, and nonexperimental findings are more easily translated beyond the boundaries of the research setting (Abdellah and Levine 1965, p. 166-168). These advantages, plus the fact that true experimentation was not an intention of this exploratory descriptive study, make the nonexperimental approach appropriate here.

Sample Population

The population from which the sample was drawn for the study consisted of all persons at prespecified meetings of the Dallas, Texas and Fort Worth, Texas, Lost Chord clubs who met the study delimitations. A subsample of fifteen was obtained from the Dallas club and five from the Fort Worth club. Together the two subsamples comprised the total sample population of twenty.

All participants in the study had undergone total laryngectomy, and were therefore faced with the problem of learning alaryngeal communication. All were at least three months postoperative, to allow time for initial adjustment to the new way of life and for some retrospective thinking. Three months postoperatively, most laryngectomees are able to

use esophageal speech to some degree (Smith, Germain, and Gips, 1971, p. 500). The new speech, though not like the old, decreases the frustration of being unable to communicate except by writing or sign language. Ability to speak was not a criterion for inclusion in the study.

This study was limited to adults (minimum age eighteen years), and all persons who responded to the questionnaire met that requirement. The age requirement was set to avoid any bias that might have been introduced by a subject who was a juvenile. Although eighteen years was the minimum age for inclusion in this study, most laryngectomees are performed for cancer of the larynx, on persons age fifty to sixty-five years (Brunner, et al. 1970, p. 218). The use of a written questionnaire as a tool necessitated the third requirement, that all subjects be able to read and write English.

Development of the Tool

The tool was based on a written questionnaire developed by Sister M. Cashel Weiler (1968, p. 1466-7). Her study was on open heart surgery patients' evaluation of their preoperative instructions. For purposes of this study, the investigator modified the questions in each of the three parts so that they would pertain to laryngectomees.

The questionnaire (see Appendix A) consisted of three parts. Part I consisted of objective, short-answer items designed to elicit information about the respondent. Part II consisted of thirty-two items of information that might be

incorporated into a teaching program for a pre-laryngectomy patient. The respondent was asked to rank each item on a Likert scale ranging from very important to not important to indicate the significance of the item to the teaching program. The respondent was also directed to indicate before surgery or after surgery as the most appropriate placement of the item in the teaching program. Treece and Treece (1973) state that the Likert scale is an example of closed-ended answers. The respondents are limited to only the choices offered, making the results easy to analyze (p. 108). Part III consisted of four open-ended questions. These were included to give the respondents an opportunity to express opinions and provide information not covered elsewhere in the questionnaire.

Treece and Treece (1973) state three advantages of using the questionnaire as a research instrument. First, it is a relatively easy method of obtaining data. Large amounts of data can be gathered at one time. A third advantage is that data can be gathered from a widely scattered sample when a questionnaire is used. A disadvantage of using the questionnaire is that responses lack depth. Items may be disregarded or omitted without explanation, or they may be misinterpreted. The respondent may be forced into a choice that is not his own. The fifth disadvantage is that the respondent may lose interest before completing the questionnaire (p. 107). The questionnaire was used in this study because of the ease of data collection. Monitors were utilized during part of the data

collection process to facilitate the completion of the questionnaire.

Part I of the questionnaire, which elicited demographic data about the respondent, followed the format of Part I of Weiler's questionnaire (1968) with some modification to obtain information about the date the respondent's laryngectomy was performed. Part II of the questionnaire consisted of thirty-two possible items relative to preoperative instruction of pre-laryngectomy patients. The items were selected after a review of the literature, which was done to determine what information is routinely taught before and after laryngectomy (the information given preoperatively covers both preoperative and postoperative events). Part III consisted of five descriptive items which closely followed the format of the five descriptive items in Part III of Weiler's questionnaire.

The questionnaire was then submitted to a three-member panel of experts which consisted of a doctor, a nurse, and a laryngectomee. The doctor is a licensed physician who is experienced in head and neck surgery. This physician practices in Dallas and performs laryngectomies in the Dallas area. The nurse is an assistant professor of medical-surgical nursing from Texas Woman's University. She teaches tracheostomy care and care of laryngectomized patients to undergraduate students at that institution. The laryngectomee is a certified esophageal speech instructor working in Dallas, Texas.

The panel was asked to evaluate all items in each of the three parts of the questionnaire for clarity and conciseness.

In addition, items in Part II were evaluated for pertinence to the teaching of persons scheduled for laryngectomy. The questionnaire was adjusted in content and wording according to the experts' suggestions. Since only a small number of minor corrections were necessary, the questionnaire was not resubmitted to the panel after revision. Part I was left unchanged. A total of thirty-two ratable items for Part II and four descriptive items for Part III were included in the revised questionnaire.

A pilot study with the completed questionnaire was done utilizing five laryngectomees who then did not participate in the actual study. The pilot test was done to determine if the subjects would be able to fill in the questionnaires correctly and also to decide if the questionnaire would produce the desired information. Fox (1966) lists three situations in which pilot testing is necessary: (1) when the technique of data collection is unfamiliar, (2) when the instrument is newly constructed, and (3) when it has not been used before with the population of the research (p. 41).

The pilot questionnaires, with cover letters of explanation, were distributed by the speech-teacher member of the panel of experts to five laryngectomees (selected by convenience) who met the criteria for inclusion in the study. The speech teacher then collected the completed questionnaires and returned them to the investigator for evaluation. The pilot study questionnaires were completed correctly, indicating that the instructions given were clear, and the information obtained was that

desired by the investigator. Therefore, the questionnaire was not revised any further.

Procedure for Data Collection

On May 13, 1974, the questionnaires were distributed by the investigator at a regularly scheduled meeting of the Lost Chord Club of Dallas, Texas. The purpose of the study was explained prior to the distribution. The subjects were asked to follow the directions written on the questionnaire and were informed that the investigator would be available to answer any questions they might have. All laryngectomees present (seventeen) participated in the study. However, only five questionnaires were completed correctly. These five were retained for inclusion in the study. The remainder were discarded. Because only five questionnaires were obtained at this session, subsequent data collection sessions were necessary to complete the sample.

Due to the laryngectomees' difficulty in completing the questionnaire the first time, monitors were used at the two subsequent sessions to assist and supervise the laryngectomees as they completed the questionnaires. Monitors were graduate medical-surgical nursing students from Texas Woman's University. The monitors were oriented to the purpose of the study and to the questionnaire itself by the investigator prior to their assistance in data collection.

The second data collection session was June 6, 1974, at the Fort Worth, Texas, Lost Chord Club meeting. Due to

the circumstances of the meeting (a picnic), the questionnaires were distributed and instructions were explained to each laryngectomee individually by the investigator. The instructions were explained as they appeared on the questionnaires; no additional instructions were added during the individual explanations. Three monitors then supervised the laryngectomees as they filled in the questionnaires, and answered their questions and reviewed the directions with them as needed. All questionnaires were checked as they were returned. Five of the six questionnaires obtained at the meeting were admissible to the study sample. One was not, as it was completed by the laryngectomee's wife independently of the laryngectomee.

The investigator then obtained appropriate permission to repeat the survey at the Dallas Lost Chord Club. The third and final data-collecting session was June 10, 1974, at Dallas. One monitor assisted at this session. The investigator repeated the purpose of the study and read the directions to the group as a whole before distributing the questionnaires. The investigator and one monitor then supervised and assisted the laryngectomees in completing the questionnaires, and checked the questionnaires for completeness as they were returned. Of eleven completed questionnaires returned, ten were usable.

In summary, the twenty questionnaires sought for completion of the study sample were obtained from three data collection sessions. Two sessions at the Dallas Lost Chord Club yielded fifteen correctly completed questionnaires. One session at the Fort Worth Lost Chord Club yielded five correctly

completed questionnaires. It was ascertained from information given in Part I of the questionnaire that the study sample was composed of twenty different individuals, none of whom participated in the pilot study.

Method of Analysis

The demographic data from Part I of the questionnaire were arranged in frequency distribution tables. This is the simplest form of presenting research data. Frequency distribution tables may be done when data consist of a series of measurements in which it is impossible for a subject to belong to more than one class (Treece and Treece 1973, p. 200).

The chi-square (goodness of fit) test was used to analyze the responses in Part II. The degree of importance (very important, somewhat important, or not important) of each item of information to the teaching program and the timing (preoperatively or postoperatively) of its placement in the teaching program were analyzed separately.

The chi-square test is a nonparametric statistical test of significance based on the chi-square distribution (Abdellah 1965, p. 699). Nonparametric techniques require fewer qualifications and assumptions about the shape of the study population than do parametric techniques. Therefore, conclusions and generalizations may be accurate despite the fact that the sample may not be representative of the total population (Treece and Treece 1973, pp. 213-214). Nonparametric statistical testing was particularly applicable to this

study because the sample population (twenty) was so small.

The chi-square test may be called a "goodness of fit" test because it compares observed frequencies in each category with the expected frequency for that category and determines the probability that the difference between these categories (i.e., the "fit") occurred by chance (Harnett 1970, p. 436). With no justification other than that it appears reasonable, it may be assumed that the variate under discussion follows a particular distribution. A comparison is then made between the actual number of observations and the expected number of observations (expected under the "assumption" for various values of the variate) (Ostle 1963, p. 126).

For purposes of this study, it was assumed that the total number of responses to each part of each item would be distributed equally among their respective cells. For example, if twelve people out of twenty rated the importance of the first item, there would be four responses in the very important category, four in somewhat important, and four in not important. If only ten of the twenty rated the timing of the presentation of that same item, there would be five responding before surgery and five responding after surgery.

After the items were analyzed separately by the chi-square test, they were categorized according to content. Responses in the same category were compared and contrasted in narrative discussion.

The responses to each of the four descriptive items in Part III were examined for similarities and differences. The responses were compared and contrasted in narrative discussion.

Summary

This chapter contained a description of the sample population, the research tool, and the procedure used for the collection and treatment of data. There were three subsamples, providing a total of twenty respondents for the study sample.

Data were collected from a written questionnaire which had been reviewed by a panel of experts. The demographic data from Part I were arranged in frequency distributions. The data from the thirty-two rated items were arranged in frequency distributions and the chi-square test of goodness of fit was applied to each item. The items were then categorized and discussed. Data from the descriptive items were analyzed for common elements and the responses were then compared and contrasted in narrative discussion.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF FINDINGS

Introduction

This study was concerned with determining what information persons who have had laryngectomies feel should be included in the preoperative teaching for patients who are to have laryngectomies. Data were gathered by means of a three-part written questionnaire.

Chapter IV presents the analysis of the data obtained. Included are a general description of the study sample from Part I of the questionnaire, chi square analysis of the rated items in Part II of the questionnaire, a summary of responses obtained from the descriptive items in Part III of the questionnaire, and a summary of significant findings of the study.

General Description of the Sample

The study sample consisted of two female and eighteen male laryngectomees. All were at least forty years of age. The dates their laryngectomies were done ranged from September 1946, to February, 1974. The majority (60 percent) had had their surgery between 1970 and 1974. The number of hospitalizations prior to laryngectomy ranged from zero to three times. The majority of respondents (60 percent) had had no surgery prior to the laryngectomy.

All subjects were Caucasian. Their education ranged from completion of the sixth grade through graduate school. Eighty percent of the subjects were Protestant. Demographic data are presented in Table 1, and data pertaining to the surgery itself are presented in Table 2.

TABLE 1
DEMOGRAPHIC DATA

Description		Number of Respondents	Percentage of Population
SEX			
Male		18	90 %
Female		2	10 %
Total		20	100 %
AGE			
40 - 50		3	20 %
50 - 60		9	45 %
60 or over		8	40 %
Total		20	100 %
EDUCATION			
Sixth Grade		1	5 %
Ninth Grade		1	5 %
Twelfth Grade		5	25 %
One year college		5	25 %
Two years college		3	15 %
Four years college		3	15 %
Graduate school		1	5 %
Not indicated		1	5 %
Total		20	100 %
RELIGION			
Catholic		3	15 %
Protestant		16	30 %
No preference		1	5 %
Total		20	100 %

TABLE 2

DATA PERTINENT TO SURGERY

Description	Number of Respondents	Percentage of Population
Date Laryngectomy was Performed		
1940-1949	1	5 %
1950-1959	0	0 %
1960-1969	7	35 %
1970-1974	<u>12</u>	<u>60 %</u>
Total	20	100 %
No. of hospitalizations prior to laryngectomy		
0	7	35 %
1	6	30 %
2	4	20 %
3	<u>3</u>	<u>15 %</u>
Total	20	100 %
No. of operations prior to laryngectomy		
0	12	60 %
1	5	25 %
2	1	5 %
3	<u>2</u>	<u>10 %</u>
Total	20	100 %

Analysis of Rated Items

The 32 items in Part II of the questionnaire were arranged in categories according to content. The chi square (goodness of fit) test was used to analyze the responses for randomness and percentage analysis was done to identify the

majority opinion. The degree of importance (very important, somewhat important, or not important) attributed to each item by respondents was analyzed separately from the response indicating the timing (preoperative or postoperative) of the item's placement in the teaching program. Not all respondents responded as instructed to each part of the question. Therefore the total number of respondents listed for an individual item is sometimes less than twenty.

Category I--Tracheostomy Care

The rated importance of the items in Category I, which covered tracheostomy care, is presented in Table 3. The suggested timing of the items in Category I is presented in Table 4. The following words are abbreviated in the tables: very important (VI), somewhat important (SI), not important (NI), before surgery (BS), and after surgery (AS).

TABLE 3

RATED IMPORTANCE OF ITEMS IN CATEGORY I--TRACHEOSTOMY CARE

	1	2	Question 3	4	5
Total No. Responding to Question	20	19	19	19	20
Actual Values - VI	18	13	12	13	10
SI	2	5	7	6	8
NI	0	1	0	0	2
Percentage Responding VI or SI	100%	95%	100%	100%	90%
Percentage Responding NI	0%	5%	0%	0%	10%
Chi Square VI/SI/NI	29.2	11.7895	11.4737	13.3684	5.2
Chi Square Level of Significance	.001	.005	.005	.005	.01

Category I consists of Items 1 through 5. Item 1 concerns information about how the tracheostomy will be cleaned and suctioned; Item 2, information on how often this will be necessary; Item 3, information as to why cleaning and suctioning is necessary; Item 4, general information about having oxygen or humidity applied to the tracheostomy after surgery; and Item 5, specific reasons for having oxygen or humidity. The findings in Table 3 indicate that the items in Category I were important to the vast majority of respondents (100 percent in the case of Items 1, 3, and 4). The chi square values for the first four items were all significant at the 0.05 level. This seems to indicate that the respondents did not reply to the items randomly. The chi square value for the fifth item was further significant at the 0.01 level.

TABLE 4

SUGGESTED TIMING OF ITEMS IN
CATEGORY I--TRACHEOSTOMY CARE

	1	2	Question 3	4	5
Total No. Responding to Question	19	20	20	20	20
Actual Values - BS	6	7	6	4	5
AS	13	13	14	16	15
Percentage Responding					
BS	32%	35%	30%	20%	25%
AS	68%	65%	70%	80%	75%
Chi Square BS/AS	2.57895	1.8	3.2	7.2	5.0
Chi Square Level of Significance	.20	.30	.10	.010	.05

The findings in Table 4 indicate that for each item, the majority of respondents preferred that the information be given after surgery rather than before. Except for Items 4 and 5 which concern the application of humidity or oxygen to the tracheostomy, the chi square values were not significant at the 0.05 level.

Category II--Intravenous Fluids

The rated importance of the items in Category II, which covered information on intravenous feeding, is presented in Table 5. The suggested timing of the items in Category II is presented in Table 6.

TABLE 5

RATED IMPORTANCE OF ITEMS IN CATEGORY II--INTRAVENOUS FLUIDS

	Question		
	6	7	8
Total No. Responding to Question	20	19	17
Actual Values - VI	5	4	6
SI	11	9	8
NI	4	6	3
Percentage Responding VI or SI	80%	68%	82%
Percentage Responding NI	20%	32%	18%
Chi Square VI/SI/NI	4.3	2.0	2.23529
Chi Square Level of Significance	.20	.50	.50

Category II consists of Items 6 through 8. Item 6 concerns a general explanation of intravenous fluids and blood; Item 7, specific reasons for receiving them; and Item 8, the approximate length of time intravenous fluids are given. The findings in Table 5 indicate that each of the three items in Category II were at least somewhat important to the majority of respondents. None of the chi square values for the three items in Table 5 were significant at the 0.05 level.

TABLE 6
SUGGESTED TIMING OF ITEMS IN
CATEGORY II--INTRAVENOUS FLUIDS

	Question		
	6	7	8
Total No. Responding to Question	17	15	15
Actual Values - BS	7	9	6
AS	10	6	9
Percentage Responding - BS	41%	60%	40%
AS	59%	40%	60%
Chi Square BS/AS	0.529412	0.6	0.6
Chi Square Level of Significance	.50	.50	.50

As seen in Tables 5 and 6, fewer respondents indicated the timing for presenting information about intravenous fluids and blood than indicated the importance of presenting the information at all. The majority of respondents indicated, as seen in Table 6, that general information about

intravenous fluids and blood and information on how long a time they might be given, should be presented after surgery. However, it was indicated that the reasons for having the fluids and blood should be explained prior to surgery. None of the chi square values for the three items in Table 6 were significant at the 0.05 level.

Category III--Feeding Tube

The rated importance of the items in Category III, which covered information about the feeding tube, is presented in Table 7. The suggested timing of the items in Category III is presented in Table 8

TABLE 7

RATED IMPORTANCE OF ITEMS IN CATEGORY III--FEEDING TUBE

	9	Question 10	11
Total No. Responding to question	20	19	17
Actual Values - VI	5	4	6
SI	11	9	8
NI	4	6	3
Percentage Responding VI or SI	80%	68%	82%
Percentage Responding NI	20%	32%	18%
Chi Square VI/SI/NI	10.7059	5.15789	3.5
Chi Square Level of Significance	0.005	0.10	0.30

Category III consists of Items 9 through 11. Item 9 concerns general information about having a feeding tube; Item 10, specific reasons for having it; and Item 11, the approximate length of time the feeding tube is used. For each of the three items in Category III, the majority of respondents indicated that the information was at least somewhat important to them. The chi square value for Item 9 was significant at the 0.005 level, which seems to indicate that respondents did not reply to the item randomly. Chi square values for the other two items were not significant at the 0.05 level.

TABLE 8

SUGGESTED TIMING OF ITEMS IN
CATEGORY III--FEEDING TUBE

	Question		
	9	10	11
Total No. Responding to Question	19	19	17
Actual Values - BS	10	8	9
AS	9	11	8
Percentage Responding BS	53%	42%	53%
AS	47%	58%	47%
Chi Square BS/AS	0.05263	0.47368	0.05882
Chi Square Level of Significance	0.90	0.50	0.90

In Table 8, it is seen that respondents favored presentation of general information about the feeding tube and about the approximate time of its continuance (Items 9 and 11)

prior to surgery. They felt that the reasons for using the feeding tube (Item 10) should be presented after surgery. None of the chi square values for the three items in Table 8 were significant at the 0.05 level.

Category IV--Speech

The rated importance of the items in Category IV, which covered speech after laryngectomy, is presented in Table 9. The suggested timing of the items in Category IV is presented in Table 10.

TABLE 9

RATED IMPORTANCE OF ITEMS IN CATEGORY IV--SPEECH

	12	Question 13	14
Total No. Responding to Question	19	17	19
Actual Values - VI	19	10	12
SI	0	5	5
NI	0	2	2
Percentage Responding VI or SI	100%	88%	89%
Percentage Responding NI	0%	12%	11%
Chi Square VI/SI/NI	38.0	5.76471	8.31579
Chi Square Level of Significance	0.001	0.10	0.025

Category IV consists of Items 12 through 14. Item 12 concerns general information about esophageal speech; Item 13, the approximate time esophageal speech lessons begin;

and Item 14, general information about other methods of speaking. For each of the three items in Category IV, the majority of respondents indicated that the information was important to them. The chi square values for Items 12 and 14 were significant beyond the 0.05 level, which apparently indicates that respondents did not reply randomly to these items. The chi square value for Item 13 was not significant at the 0.05 level.

TABLE 10
SUGGESTED TIMING OF ITEMS IN
CATEGORY IV--SPEECH

	Question		
	12	13	14
Total No. Responding to Question	17	18	17
Actual Values - BS	16	8	6
AS	1	10	11
Percentage Responding			
BS	94%	44%	35%
AS	6%	56%	65%
Chi Square BS/AS	13.2353	0.2222	1.47059
Chi Square Level of Significance	0.001	0.70	0.30

In Table 10, it is seen that the majority (94 percent) of respondents preferred that general information about esophageal speech (Item 12) be presented before surgery. However, they preferred that information on when esophageal speech lessons would start and information on other methods of

speaking be given after surgery. The chi square value for Item 12 was significant at the 0.001 level, which seems to indicate that respondents did not reply randomly to this item. The chi square values for Items 13 and 14 in Table 10 were not significant at the 0.05 level.

Category V--Pain

The rated importance of the items in Category V, which covered information on pain after laryngectomy, is presented in Table 11. The suggested timing of the items in Category V is presented in Table 12.

TABLE 11

RATED IMPORTANCE OF ITEMS IN CATEGORY V--PAIN

	15	Question 16	17
Total No. Responding to Question	17	18	19
Actual Values - VI	8	5	6
SI	6	9	10
NI	3	4	3
Percentage Responding VI or SI	82%	78%	84%
Percentage Responding NI	18%	22%	16%
Chi Square VI/SI/NI	2.23529	2.33333	3.89474
Chi Square Level of Significance	0.5	0.5	0.2

Category V consists of Items 15 through 17. Item 15 concerns general information about the amount of pain that might be experienced after laryngectomy; Item 16, the approximate length of time the pain might last after surgery; and Item 17, general information about medication given for pain. As seen in Table 11, a small majority of respondents indicated that each of the three items were at least somewhat important. None of the chi square values in Table 11 were significant at the 0.05 level.

TABLE 12
SUGGESTED TIMING OF ITEMS IN
CATEGORY V--PAIN

	15	Question 16	17
Total No. Responding to Question	16	17	17
Actual Values - BS	9	9	10
AS	7	8	7
Percentage Responding			
BS	56%	53%	59%
AS	44%	47%	41%
Chi Square BS/AS	0.25	0.5882	0.529412
Chi Square Level of Significance	0.70	0.90	0.50

As seen in Table 12, the majority of respondents preferred that each of the three items of information be presented prior to surgery. None of the chi square values in Table 12 were significant at the 0.05 level.

Category VI--Intensive Care Unit

The rated importance of the items in Category VI, which covered information about the intensive care unit, is presented in Table 13. The suggested timing of the items in Category VI is presented in Table 14.

TABLE 13

RATED IMPORTANCE OF ITEMS IN CATEGORY VI--INTENSIVE CARE UNIT

	Question			
	18	19	20	21
Total No. Responding to Question	19	19	19	19
Actual Values - VI	9	4	4	8
SI	7	0	0	1
NI	3	15	15	10
Percentage Responding VI or SI	84%	21%	21%	47%
Percentage Responding NI	16%	79%	79%	53%
Chi Square VI/SI/NI	2.94737	19.0526	19.0526	7.05263
Chi Square Level of Significance	0.3	0.001	0.001	0.05

Category VI consists of Items 18 through 21. Item 18 concerns an explanation of the meaning of intensive care; Item 19, a tour of the intensive care unit before surgery; Item 20, meeting the personnel of the intensive care unit before surgery; and Item 21, information about visiting hours in intensive care. In Table 13, the majority of respondents indicated

that an explanation of the meaning of intensive care (Item 18) was at least somewhat important to them. The chi square value for this item was not significant at the 0.05 level. Respondents indicated that the other items of information about intensive care (Items 19 through 21) were not important. Chi square values for Items 19 through 21 were all significant at the 0.05 level. Chi square values for Items 19 and 20 were further significant at the 0.001 level.

TABLE 14

SUGGESTED TIMING OF ITEMS IN
CATEGORY VI--INTENSIVE CARE UNIT

	18	Question		21
	19	20		
Total No. Responding to Question	18	14	14	15
Actual Values - BS	17	12	12	13
AS	1	2	2	2
Percentage Responding				
BS	94%	86%	86%	87%
AS	6%	14%	14%	13%
Chi Square BS/AS	14.2222	7.14286	7.14286	8.06667
Chi Square Level of Significance	0.001	0.01	0.01	0.005

As seen in Table 14, the majority of respondents preferred that the information about each of the items concerning intensive care be given prior to surgery. The chi square values for Items 19 and 20 were not significant at the 0.05 level. The chi square value for Item 18 was significant at

the 0.001 level, and the chi square value for Item 21 was significant at the 0.005 level.

Category VII--Postoperative Care

The rated importance of items in Category VII, which covered postoperative care, is presented in Table 15. The suggested timing of the items in Category VII is presented in Table 16.

TABLE 15

RATED IMPORTANCE OF ITEMS IN CATEGORY VII--POSTOPERATIVE CARE

	Question	
	22	23
Total No. Responding to Question	20	20
Actual Values - VI	1	1
SI	8	8
NI	11	11
Percentage Responding VI or SI	45%	45%
Percentage Responding NI	55%	55%
Chi Square	7.9	7.9
Chi Square Level of Significance	0.025	0.025

Category VII consists of Items 22 and 23. Item 22 concerns information on how often vital signs will be taken following surgery, and Item 23 concerns information on turning in bed after surgery. In Table 15, for both individual items, the majority of respondents indicated that the information

was not important. The chi square values for the individual items were significant at the 0.025 level.

TABLE 16
SUGGESTED TIMING OF ITEMS IN
CATEGORY VII--POSTOPERATIVE CARE

	Question	
	22	23
Total No. Responding to Question	15	16
Actual Values - BS	8	8
AS	7	8
Percentage Responding		
BS	53%	50%
AS	47%	50%
Chi Square BS/AS	0.06666	0.0
Chi Square Level of Significance	0.5	...

In Table 16, it is seen that for Item 22, the majority of respondents preferred that the information on vital signs be given prior to surgery. The chi square value for this item was not significant at the 0.05 level. For Item 23 (turning after surgery) the responses were equally divided between before and after surgery, which could indicate that responses were made randomly rather than thoughtfully.

Category VIII--Preoperative Care

The rated importance of the items in Category VIII, which covered preoperative care, is presented in Table 17.

The suggested timing of the items in Category VIII is presented in Table 18.

TABLE 17
RATED IMPORTANCE OF ITEMS IN
CATEGORY VIII--PREOPERATIVE CARE

	24	Question 25	26	27
Total No. Responding to Question	20	18	20	19
Actual Values - VI	8	7	16	17
SI	6	9	4	2
NI	6	2	0	0
Percentage Responding VI or SI	70%	89%	100%	100%
Percentage Responding NI	30%	11%	0%	0%
Chi Square VI/SI/NI	0.4	4.33333	20.8	27.2632
Chi Square Level of Significance	0.9	0.2	0.001	0.001

Category VIII consists of Items 24 through 27. Item 24 concerns general information about preparations to be made the night before surgery; Item 25, general information about contacting a priest, minister, or rabbi; Item 26, information as to how relatives will be informed as surgery progresses; and Item 27, information to relatives about where to wait and when and where to see the doctor. In Table 17, it is seen that the majority of respondents attributed at least some

degree of importance to each of the four items in the category. The chi square values for Items 24 and 25 were not significant at the 0.05 level. However, the chi square values for Items 26 and 27 (concerning information given to the patient's relatives) were significant at the 0.005 level.

TABLE 18

SUGGESTED TIMING OF ITEMS IN
CATEGORY VIII--PREOPERATIVE CARE

	24	25	Question 26	27
Total No. Responding to Question	17	18	20	18
Actual Values - BS	16	17	18	16
AS	1	1	2	2
Percentage Responding				
BS	94%	94%	90%	89%
AS	6%	6%	10%	11%
Chi Square BS/AS	13.2353	14.2222	12.8	10.8889
Chi Square Level of Significance	0.001	0.001	0.001	0.001

In Table 18, it is seen that for each individual item there was a clear majority preferring that the information be given before surgery rather than afterward (this choice is rather obvious considering the content of the items). The chi square values for each of the four individual items were all significant at the 0.001 level, which seems to indicate that respondents did not reply randomly to the items.

Category IX--Progress

The rated importance of the item in Category IX, which covered information on the patient's progress from intensive care to dismissal from the hospital, is presented in Table 19. The suggested timing of the item in Category IX is presented in Table 20.

TABLE 19

RATED IMPORTANCE OF ITEMS IN
CATEGORY IX--PROGRESS

	Question 28
Total No. Responding to Question	19
Actual Values - VI	10
SI	7
NI	2
Percentage Responding VI or SI	89%
Percentage Responding NI	11%
Chi Square VI/SI/NI	5.15789
Chi Square Level of Significance	0.1

Category IX consists of Item 28. Item 28 concerns information about the patient's progress from the intensive care unit to home. As seen in Table 19, 89 percent of respondents indicated that information about progress was at least somewhat important to know. Eleven percent replied that this information was not important. The chi square value for this item was not significant at the 0.05 level.

TABLE 20
SUGGESTED TIMING OF ITEMS IN
CATEGORY IX--PROGRESS

	Question 28
Total No. Responding to Question	17
Actual Values - BS	11
AS	6
Percentage Responding BS	65%
AS	35%
Chi Square BS/AS	1.47059
Chi Square Level of Significance	0.3

From Table 20, it is seen that 65 percent of respondents felt that information concerning progress should be given prior to surgery; 35 percent preferred that this information be given after surgery. The chi square value for this item was not significant at the 0.05 level.

Category X--Life After Laryngectomy

The rated importance of the items in Category X, which covered information on life after laryngectomy, is presented in Table 21. The suggested timing of the items in Category X is presented in Table 22.

TABLE 21
 RATED IMPORTANCE OF ITEMS IN
 CATEGORY X--LIFE AFTER LARYNGECTOMY

	Question			
	29	30	31	32
Total No. Responding to Question	20	20	20	20
Actual Values - VI	16	16	16	18
SI	4	3	4	1
NI	0	1	0	1
Percentage Responding VI or SI	100%	90%	100%	90%
Percentage Responding NI	0%	5%	0%	5%
Chi Square VI/SI/NI	20.8	19.9	20.8	28.9
Chi Square Level of Significance	0.001	0.001	0.001	0.001

Category X consists of Items 29 through 32. Item 29 concerns information about visiting with a successfully rehabilitated laryngectomee; Item 30, information about limitations imposed by the tracheostomy; Item 31, information on how the tracheostomy might affect the person's work situation; and Item 32, information about the Lost Chord or New Voice Club. Examination of the raw data in Table 21 shows that a clear majority of respondents attributed very important status to each of the four individual items in the category. Chi square values for each of the four items in Table 21 were all significant at the 0.001 level, which seems to indicate that respondents did not reply randomly to these items.

TABLE 22

SUGGESTED TIMING OF ITEMS IN
CATEGORY X--LIFE AFTER LARYNGECTOMY

	29	Question		32
		30	31	
Total No. Responding to Question	18	19	18	19
Actual Values - BS	13	11	14	13
AS	5	8	4	6
Percentage Responding				
BS	72%	58%	78%	68%
AS	28%	42%	22%	32%
Chi Square BS/AS	3.555560	0.473684	5.555560	2.578950
Chi Square Level of Significance	0.100	0.500	0.025	0.200

In Table 22, it is shown that the majority of respondents preferred that each of the four items concerning life after laryngectomy be presented prior to surgery. Two respondents each for Items 29 and 31 and one respondent each for Items 30 and 32 felt that these specific items should be presented both before and after surgery (these "double responses" are not included in the tabulated results in Table 22). The chi square value for Item 31 is significant at the 0.025 level. The other chi square values in this table were not significant at the 0.05 level.

Descriptive Questions

Part III of the questionnaire contains four descriptive questions which were to be answered in essay fashion by the respondents. The first question required the respondent to state which aspects of his preoperative instructions he felt should have received the greatest emphasis during teaching. There were seventeen usable responses to this question. Out of this number, five respondents indicated that learning to talk should have received the greatest emphasis in their teaching. Anatomical changes were important to one respondent. Another stated that "small things such as changes in taste and smell" and the chances of being able to continue in his profession should have received more emphasis. Other areas of emphasis listed were stomal care and the amount of pain to be expected. One respondent stressed the need to assess the patient's state of mind and the extent of his knowledge of the situation when deciding what to teach or emphasize. One person wrote, "The most important thing they told me was that the voice box was malignant."

The second question asked respondents to indicate any information they felt should not have been included in their preoperative teaching. There were sixteen usable responses to this question. Of these, twelve respondents indicated that there was no information which should have been omitted from their preoperative teaching. One person wrote, "Any and all information concerning operation is important and not too

much information concerning operation could be given." Four respondents stated that they had little or no preoperative teaching and therefore could not answer the question.

In response to the third question, respondents listed the person most helpful in providing their preoperative instructions. There were fifteen usable responses to this question. Of these, nine indicated that the doctor was the most helpful person providing instructions. One respondent wrote that his teaching had been done by a doctor and a nurse; this was the only mention of a nurse's being helpful in giving preoperative instructions. Thus, a total of ten persons mentioned the doctor as being one of the most helpful people in providing preoperative learning and a total of one person mentioned the nurse as being helpful in giving instructions. Three respondents stated that the laryngectomees speech teacher was most helpful in providing instructions. One respondent stated that a relative had been the most helpful teacher, and one stated that a doctor and other patients had provided his instructions.

The final question was designed to elicit the laryngectomees' suggestions on ways nurses and doctors can improve preoperative learning experiences for patients who will be having laryngectomies in the future. Eighteen responses were usable. Three persons responded that they had no suggestions. Five of the remaining fifteen suggested a visit from a well-rehabilitated laryngectomee (one suggested that the laryngectomee

come before and after surgery). Other respondents indicated that information about Lost Chord Clubs and first aid for laryngectomees might be particularly helpful. One respondent emphasized that the patient may not know what questions to ask to learn what he wishes to know. This reinforces the fact that it is the health team's responsibility to anticipate and provide for the patient's need for information.

Summary of Significant Findings

The sample population included eighteen male laryngectomees (90 percent) and two female laryngectomees (10 percent). Sixty percent of the sample population had had no operations prior to laryngectomy, and 25 percent more had had only one. Sixty percent of the respondents had had their surgery done after 1970.

In Part II of the questionnaire, respondents rated the importance of thirty-two items of information and suggested the optimal placement of each item in the teaching program for the laryngectomized patient. Information that generally was attributed some degree of importance by respondents included information relating to general preoperative care, progress from admission to dismissal, tracheostomy care, pain, intravenous fluids and blood, the feeding tube, speech after laryngectomy, and life after laryngectomy. Information about the stay in the intensive care unit and about general postoperative care (vital signs and turning in bed) generally was not considered important.

Information that respondents generally preferred given prior to surgery included information on preoperative care, progress, general postoperative care, the stay in the intensive care unit, general information on and length of continuance of the feeding tube, pain, general information on esophageal speech, and life after laryngectomy. Information that respondents generally preferred postponing until after surgery included that on tracheostomy care, intravenous fluids (except the reason for using them), the reason for using the feeding tube, and information on methods of speaking other than esophageal speech.

From the descriptive questions in Part III, the most significant finding was that the nurse was seen as a helpful person in providing preoperative teaching by only one respondent. Ten stated that the doctor was the most helpful instructor. Five respondents stated that a visit from a well-rehabilitated laryngectomee could be immensely helpful in easing a patient's postoperative course, and three stated that a laryngectomee had provided their most valuable preoperative instruction.

An additional finding from the descriptive questions was that respondents indicated they wanted all the information available included in their preoperative teaching. There was no mention in any of the responses of any information that should not be included in preoperative teaching. This finding contrasts slightly with findings from Part II, where the

timing of three types of information was generally indicated as after surgery by respondents.

Summary of Chapter

Data were obtained by use of a three-part written questionnaire. Percentages and frequency distributions were utilized in describing the sample population. The rated items were analyzed using percentages to determine the majority response. Chi square goodness of fit was utilized to predict randomness in the responses. The rated items were analyzed individually and then collectively in their categories. The descriptive items were discussed narratively. Significant findings from each of the three parts of the questionnaire were then identified and discussed.

CHAPTER V

SUMMARY, RECOMMENDATIONS, AND CONCLUSIONS

Summary

This study was concerned with determining what information persons who have had laryngectomies feel should be included in the preoperative teaching for patients who are to have laryngectomies. The purposes of the study were to determine the content of preoperative teaching programs for patients facing laryngectomy; to determine the timing of the presentation of this information, preoperatively or postoperatively in the teaching program; and to determine which topics should receive special emphasis. Other purposes were to determine who was most helpful in providing the laryngectomized persons' instructions and to obtain laryngectomized persons' suggestions on ways to improve preoperative instruction for persons who will be undergoing laryngectomies in the future.

The population from which the study sample was drawn consisted of all persons at prespecified meetings of the Dallas and Fort Worth, Texas Lost Chord clubs who met the study delimitations. All participants in the study had undergone total laryngectomy. The minimum age for participation in the study was eighteen years, but all participants were at least forty years of age.

The tool was a three-part questionnaire. Part I consisted of objective, short-answer items designed to elicit demographic data and information about the respondent's surgical experience. Part II consisted of thirty-two items of information that might be incorporated into a teaching program for a pre-laryngectomy patient. The respondents were asked to rank each item on a Likert-type scale ranging from very important to not important to indicate the significance of the item to the teaching program. The respondents were then asked to indicate before surgery or after surgery as the most appropriate placement of the item in the teaching program. Part III consisted of four open-ended questions. These were included to give the respondents an opportunity to express opinions and provide information not covered elsewhere in the questionnaire.

The study sample consisted of two female and eighteen male laryngectomees. All were Caucasian and at least forty years of age. Sixty percent had had their surgery done between 1970 and 1974. The number of hospitalizations prior to laryngectomy ranged from zero to three. Sixty percent of the respondents had had no surgery prior to the laryngectomy.

In Part II, the information that generally was attributed some degree of importance by respondents included that relating to general preoperative care, progress from admission to dismissal, tracheostomy care, pain, intravenous fluids and blood, the feeding tube, speech after laryngectomy, and life

after laryngectomy. Information about the stay in the intensive care unit and about general postoperative care generally was not considered important.

The only information that respondents preferred given after surgery rather than before was that concerning tracheostomy care, general information about intravenous fluids and blood and the approximate length of their continuance, information concerning the reason for using the feeding tube, and information on methods of speaking other than esophageal speech.

From the descriptive questions in Part IV, the most significant finding was that the nurse was seen as a helpful person in providing preoperative teaching by only one respondent. Ten saw the doctor as being helpful in giving instructions. Four people out of the twenty (20 percent) stated that they had had little or no preoperative instruction. None listed any information that should not be given preoperatively.

Five persons stated in Part III that a visit from a well-rehabilitated laryngectomee would be helpful in aiding future patients' adjustment to their surgery. Also, a visit from a laryngectomee was rated either very important or somewhat important by 100 percent of the respondents in Part II.

Recommendations

Based on the findings of this study, the following recommendations are offered:

1. A similar study be conducted utilizing a larger population of laryngectomees.

2. The study be repeated using a structured interview rather than a written questionnaire, in order to obtain more open communication and feedback than is possible with the printed questionnaire.

3. Studies be conducted utilizing the experimental technique to determine the effectiveness of various methods of individual instruction in preparation for laryngectomy.

4. Studies with similar purpose and format be applied to other types of mutilating surgery such as radical mastectomy and ostomy surgery.

Implications

Based on the findings of this study, the following implications were derived:

For Nursing Service:

From replies to the descriptive questions in Part III, it is evident that except in one instance, the study sample did not view nurses as helpful preoperative teachers. Nursing Service must therefore recognize the beneficial effects of preoperative teaching on the patient's postoperative course and should establish optimal conditions for the provision of this teaching. Sufficient staffing should be provided so that nursing personnel on the units are free to spend time talking with patients scheduled for laryngectomy or any other type of surgery. Full time personnel could be hired whose primary responsibility is pre-and postoperative teaching of patients and their families, and clinical specialists could be utilized to do teaching in their specialty areas.

For Nursing Education:

Instruction and supervised practice in preoperative teaching of laryngectomy and other surgical patients should be incorporated into undergraduate curricula. Creativity in devising new methods of instruction should be encouraged as students become familiar with the standard methods and materials of preoperative teaching.

Further,, nursing students should become acquainted with the procedure and the physical, psychological, and social implications of laryngectomy. They should be encouraged to visit Lost Chord or New Voice Club meetings so that they can be taught by the laryngectomees themselves.

For Continuing Education:

Continuing Education should seek to make nursing personnel more aware of the benefits and effectiveness of preoperative teaching of the laryngectomy patient. Literature, audiovisual materials, and lesson plans should be made available in post-graduate courses to further facilitate nurses' providing preoperative instruction. The nurses should be introduced to the services of the American Cancer Society which are available to the laryngectomee and should be instructed in making referrals.

For Nursing Practice:

Nurses should creatively design and implement teaching for the laryngectomy patient and his family which is based on an initial assessment of individual needs and readiness. The

oncology clinical specialists should be utilized to teach patients and nursing personnel about the procedure and consequences of laryngectomy.

Interdisciplinary conferences of the physician, nurse, social worker, and other health team members should be held periodically. This practice will facilitate considering the patient in his totality and meeting all of his needs.

Conclusions

This study was conducted to determine what information persons who have had laryngectomies feel should be included in the preoperative teaching for patients who are to have laryngectomies. From the findings of the study, several conclusions were apparent.

Care of the tracheostomy, learning to speak again, and return to previous lifestyle are extremely important to the laryngectomee. These are his major areas of concern preoperatively. In order to decrease the patient's anxiety and facilitate his postoperative recovery, the nurse must be certain that the patient receives the information he needs and wants preoperatively--particularly in these areas of major concern.

Laryngectomees need and desire preoperative instruction. They are dependent on the health team to assess their need for information and provide preoperative instruction.

When instruction is inadequate, the patient may be excessively fearful or angry postoperatively and may refuse to cooperate in his care.

The nurse was generally not effective in providing preoperative instructions. Her inadequacy as a preoperative instructor may have been secondary to lack of knowledge or time to do the teaching. She may have been unaware of the importance and effectiveness of preoperative teaching. This indicates a need for continuing or inservice education for nurses in the field of preoperative teaching—particularly that of the laryngectomized patient.

This study is useful in that it can provide a basis for designing a teaching program for laryngectomees and their families. It suggests ways in which preoperative teaching can be structured to provide the greatest benefits to these patients.

1. The purpose of this study is to determine the effect of the use of the questionnaire on the results of the pilot study.

2. The questionnaire was administered to a group of subjects who had previously participated in the pilot study.

3. The results of the questionnaire are presented in the following table.

4. The results of the pilot study are presented in the following table.

5. The results of the questionnaire and the pilot study are compared in the following table.

QUESTIONNAIRE

AND THE

RESULTS OF PILOT STUDY

APPENDIX A

QUESTIONNAIRE

The purpose of this questionnaire is to learn how you view the type of preparation and instructions you received from your doctor and nurses before your operation. Please check (✓) or briefly answer.

Age: Below 20 _____ (20-30) _____ (30-40) _____ (40-50) _____
(50-60) _____ (60 or over) _____

Sex: Male _____ Female _____ Race: Caucasian _____ Negro _____
Other _____

Religion: Catholic _____ Protestant _____ Jewish _____
No Religious Preference _____

Occupation: _____

Educational Background: Please circle the highest grade you achieved:

Grade 1 2 3 4 5 6 7 8 9 (Freshman); 10 (Sophomore);

11 (Junior); 12 (Senior);

College: 1 2 3 4; Graduate School

Please write in your answer to the following three statements:

Number of times you were hospitalized before you had
your laryngectomy _____

Number of operations you had before your laryngectomy _____

Date your laryngectomy was performed _____

Directions

In the columns marked Very Important, Somewhat Important, and Not Important, please rate the following types of information according to how important you feel it is for the person who is anticipating a laryngectomy to receive.

In the columns marked Before Surgery and After Surgery, please indicate when you feel would be the best time to give the information.

Example

If you feel the explanation of intravenous fluids is very important to you, then place a check (✓) in the column Very Important. If you feel that information about intravenous fluids should be given before surgery, then place a check (✓) in the column Before Surgery.

General explanation of
intravenous fluids

Very Important	Somewhat Important	Not Important	Before Surgery	After Surgery
✓			✓	

	Very Impor- tant	Some- what Impor- tant	Not Impor- tant	Before Surgery	After Surgery
1. Information about how your tracheostomy will be cleaned and suctioned.	3	1	0	3	1
2. Information on how often cleaning and suctioning will be necessary.	2	2	0	3	1
3. General information about why your tracheostomy will be cleaned and suctioned.	1	3	0	3	0
4. General information about having moist air and/or oxygen applied to the tracheostomy opening after surgery.	2	2	0	3	1
5. Specific reasons for having moist air or oxygen through your tracheostomy.	2	2	0	2	2
6. General explanation of intravenous fluids and blood.	2	2	0	4	0
7. Specific reasons for having intravenous fluids and blood.	2	1	0	3	0
8. Approximate length of time intravenous fluids are given.	1	2	0	3	0

	Very Impor- tant	Some- what Impor- tant	Not Impor- tant	Before Surgery	After Surgery
9. General informa- tion about the feeding tube.	2	2	0	4	0
10. Specific reasons for having feed- ing tube.	3	1	0	4	0
11. Approximate length of time feeding tube will be used.	2	2	0	4	0
12. General informa- tion about esopha- geal speech.	4	0	0	4	0
13. Approximately when esophageal speech lessons would start.	4	0	0	4	0
14. General informa- tion about other methods of speaking.	3	1	0	4	0
15. General informa- tion about the amount of pain that might be experienced after surgery.	2	2	0	4	0
16. Approximate length of time the pain might last after surgery.	1	3	0	4	0
17. General informa- tion about the medication given for pain.	0	3	1	3	1
18. Explanation of what intensive care means.	0	4	0	4	0
19. Tour of the intensive care unit before surgery.	0	1	3	1	0

	Very Impor- tant	Some- what Impor- tant	Not Impor- tant	Before Surgery	After Surgery
20. Meeting the personnel of the intensive care unit before surgery.	0	2	2	2	0
21. Information about visiting hours in intensive care.	1	2	1	3	0
22. Information about how often blood pressure, temperature, and pulse will be taken after surgery.	1	1	3	1	2
23. Information about how often you will be expected to turn in bed.	2	2	0	2	1
24. General information about what will take place the night before surgery--enema, bath, sleeping pill, etc.	2	2	0	4	0
25. General information about contacting a priest, minister, or rabbi.	0	3	1	3	1
26. Specific information about how your relatives will be informed as surgery progresses.	1	3	0	4	0
27. Specific information given to your relatives about where to wait, when and where to see your doctor.	1	3	0	4	0

	Very Impor- tant	Some- what Impor- tant	Not Impor- tant	Before Surgery	After Surgery
28. Information about your progression from intensive care to when you go home.	0	1	3	0	2
29. Information about visiting with a person who has adjusted to a laryngectomy.	3	0	0	3	0
30. Information about limitations imposed on you by your tracheostomy (such as being unable to swim).	3	0	1	4	0
31. Information about your tracheostomy might affect your work.	4	0	0	4	0
32. Information about Lost Chord or New Voice Club.	4	0	3	1	0

Please answer the following questions as they pertain to you. Any additional comments will be appreciated.

1. What aspects of your preoperative instruction do you feel should have received the greatest emphasis during teaching?
2. What information do you feel should not have been included in your preoperative teaching?

33. Who was the most helpful in providing you information in your preoperative learning? (Doctor, Nurse, Other patients, Relative of another patient, etc.)

44. Do you have any suggestions on ways nurses and doctors can improve preoperative learning experiences for patients who will be having laryngectomies in the future?

REFERENCES CITED

Books

- Abdellah, Faye G., and Levine, Eugene. Better Patient Care Through Nursing Research. New York: MacMillan Co., 1965.
- Bouchard, Rosemary and Owens, Norma F. Nursing Care of the Cancer Patient. 2nd ed. St. Louis: C.V. Mosby Co.,
- Brunner, Lillian S., et al. Textbook of Medical-Surgical Nursing. 2nd ed. Philadelphia: J. B. Lippincott Co., 1970.
- Fox, David J. Fundamentals of Research in Nursing. New York: Meredith Publishing Co., 1966.
- Francis, Gloria M. and Munjas, Barbara. Promoting Psychological Comfort. Dubuque, Iowa: W. C. Brown Co., 1968.
- Harnett, Donald L. Introduction to Statistical Methods. Reading, Massachusetts: Addison-Wesley Publishing Co., 1970.
- Ostle, Bernard. Statistics in Research: Basic Concepts and Techniques for Research Workers. 2nd ed. Ames: Iowa State University Press, 1963.
- Redman, Barbara Klug. The Process of Patient Teaching in Nursing. St. Louis: C. V. Mosby Co., 1968.
- Saunders, William H., et al. Nursing Care in Eye, Ear, Nose, and Throat Disorders. 2nd ed. St. Louis: C. V. Mosby Co., 1968.
- Smith, Dorothy W.; Germain, Carol P.; and Gips, Claudia D. Care of the Adult Patient: Medical Surgical Nursing. 3rd ed. Philadelphia: J. B. Lippincott Co., 1971.
- Snidecor, John C., et al. Speech Rehabilitation of the Laryngectomized. 2nd ed. Springfield, Illinois: Charles C. Thomas, 1969.
- Treece, Eleanor W., and Treece, James W. Elements of Research in Nursing. St. Louis: C. V. Mosby Co., 1973.

Journals

- Barton, Richard Thomas. "Life After Laryngectomy." Laryngoscope 75 (September 1965): 1408-1415.
- Bird, Brian. "Psychological Aspects of Preoperative and Postoperative Care." American Journal of Nursing 55 (June 1955): 685-687.
- Brophy, Selma F. "A Means of Allaying Patient Anxieties Preoperatively." AORN Journal (February 1968): 44-46.
- Brownsberger, Carl N. "Emotional Stress Connected with Surgery." Nursing Forum 4 (1965): 46-55.
- Carnevali, Doris L. "Preoperative Anxiety." American Journal of Nursing 66 (July 1966): 1536-1538.
- Clough, Alice, et al. "What Patients Want to Know About Their Diagnostic Tests." Nursing Outlook 11 (April 1963): 265-267.
- Dodge, Joan S. "How Much Should the Patient Be Told--And By Whom?" Hospitals 37 (December 16, 1963): 66+.
- Dumas, Rhetaugh G., and Leonard, Robert C. "The Effect of Nursing on the Incidence of Postoperative Vomiting." Nursing Research 12 (Winter, 1963): 12-15.
- Egbert, Lawrence D., et al. "Reduction of Postoperative Pain by Encouragement and Instruction of Patients." The New England Journal of Medicine 270 (April 16, 1964): 825-827.
- Ernstene, A. Carlton. "Explaining to the Patient." Journal of the American Medical Association 165 (November 2, 1957): 1110-1113.
- Gardner, Warren H. "Adjustment Problems of Laryngectomized Women." Archives of Otolaryngology 83 (January 1966): 57-68.
- Gregg, Dorothy. "Reassurance." In Social Interaction and Patient Care, pp. 127-136. Edited by James K. Skipper and Robert C. Leonard. Philadelphia: J. B. Lippincott Co., 1965.
- Healy, Kathryn M. "Does Preoperative Instruction Make a Difference?" American Journal of Nursing 68 (January 1968): 62-67.

- Healy, Kathryn M. "A Preoperative Patient Teaching Program." AORN Journal 10 (October 1969): 37-43.
- Jourard, Sidney M. "How Well Do You Know Your Patients?" American Journal of Nursing 59 (November 1959): 1568-1571.
- Knowles, Lois N. "How Can We Reassure Patients?" American Journal of Nursing 59 (June 1959): 834-835.
- Langlois, Patricia, and Teramoto, Vinnie. "Helping Patients Cope With Hospitalization." Nursing Outlook 19 (May 1971): 334-336.
- Larson, Virginia L. "What Hospitalization Means to Patients." American Journal of Nursing 61 (May 1961): 44-47.
- Lindeman, Carol A., and Van Aernam, Betty. "Nursing Intervention With the Presurgical Patient--The Effects of Structured and Unstructured Preoperative Teaching." Nursing Research 20 (July-August 1971): 319-332.
- Magill, Kathleen A. "How One Patient Handled Fear." American Journal of Nursing 67 (June 1967): 1248-1249.
- Mohammed, Mary F. "Patients' Understanding of Written Health Information." Nursing Research 13 (Spring 1964): 100-108.
- Nahum, Alan M., and Golden, Joshua S. "Psychological Problems of Laryngectomy." Journal of the American Medical Association 186 (December 28, 1963): 1136-1137.
- Pitorak, Elizabeth F. "Laryngectomy." American Journal of Nursing 68 (April 1968): 780-786.
- Powers, Maryann E. and Storlie, Frances. "The Apprehensive Patient." American Journal of Nursing 67 (January 1967): 58-63.
- Schmitt, Florence E., and Wooldridge, Powhatan J. "Psychological Preparation of Surgical Patients." Nursing Research 22 (March-April 1973): 108-116.
- Searcy, Laurel. "Nursing Care of the Laryngectomy Patient." RN 35 (October 1972): 35-41.
- Skipper, James K.; Mauksch, Hans O., and Tagliacozzo, Daisy. "Some Barriers to Communication Between Patients and Hospital Functionaries." Nursing Forum 2 (No. 1, 1963): 15-23.

- Streeter, Virginia. "The Nurse's Responsibility for Teaching Patients." American Journal of Nursing 53 (July 1953): 818-820.
- Thaxton, Adele. "Teaching Expectant Parents What They Want to Know." American Journal of Nursing 62 (May 1962): 112-114.
- Tollefsrud, Valborg E. "We're for Educating our Patients." American Journal of Nursing 56 (August 1956): 1009-1010.
- Tryon, Phyllis A., and Leonard, Robert C. "Giving the Patient an Active Role." In Social Interaction and Patient Care, pp. 120-126. Edited by James K. Skipper and Robert C. Leonard. Philadelphia: J. B. Lippincott Co., 1965.
- Vincent, Pauline. "Factors Influencing Patient Noncompliance: A Theoretical Approach." Nursing Research 20 (November-December 1971): 509-516.
- Walsh, Thomas F., ed. "Sound the Way for Laryngectomees." Patient Care 6 (August 15, 1972): 58-68.
- Weaver, Barbara and Williams, Elsie L. "Teaching the Tuberculosis Patient." American Journal of Nursing 63 (December 1963): 80-82.
- Weiler, M. Cashel, Sister. "Postoperative Patients Evaluate Preoperative Instruction." American Journal of Nursing 68 (July 1968): 1465-1467.
- Weir, N. F. "Theodore Billroth: The First Laryngectomy for Cancer." Journal of Laryngology and Otology 87 (December 1973): 1161-
- Wilson, Robert N. "The Social Structure of a General Hospital." In Social Interaction and Patient Care, pp. 233-244. Edited by James K. Skipper and Robert C. Leonard. Philadelphia: J. B. Lippincott Co., 1965.

Other

- International Association of Laryngectomees. Helping Words for the Laryngectomee. New York: International Association of Laryngectomees, 1964.
- International Association of Laryngectomees. Rehabilitating Laryngectomees. New York: International Association of Laryngectomees, 1971.

SELECTED BIBLIOGRAPHY

Books

- Abdellah, Faye G., and Levine, Eugene. Better Patient Care Through Nursing Research. New York: MacMillan Co., 1965.
- American Cancer Society. A Cancer Source Book for Nurses. New York: American Cancer Society, Inc., 1963.
- American Cancer Society. Essentials of Cancer Nursing. New York: American Cancer Society, Inc., 1963.
- Behnke, Helen D., ed. Guidelines for Comprehensive Nursing Care in Cancer. New York: Springer Publishing Co., Inc., 1973.
- Bouchard, Rosemary, and Owens, Norma F. Nursing Care of the Cancer Patient. 2nd ed. St. Louis: C. V. Mosby Co., 1972.
- Brunner, Lillian S., et al. Textbook of Medical-Surgical Nursing. 2nd ed. Philadelphia: J. B. Lippincott Co., 1970.
- Fox, David J. Fundamentals of Research in Nursing. New York: Meredith Publishing Co., 1966.
- Francis, Gloria M., and Munjas, Barbara. Promoting Psychological Comfort. Dubuque, Iowa: W. C. Brown Co., 1968.
- Harnett, Donald L. Introduction to Statistical Methods. Reading, Massachusetts: Addison-Wesley Publishing Co., 1970.
- Mason, Robert D. Statistical Techniques in Business and Economics. Homewood, Illinois: Richard D. Irwin, Inc., 1970.
- Ostle, Bernard. Statistics in Research: Basic Concepts and Techniques for Research Workers. 2nd ed. Ames: Iowa State University Press, 1963.
- Redman, Barbara Klug. The Process of Patient Teaching in Nursing. St. Louis: C. V. Mosby Co., 1968.
- Saunders, William H., et al. Nursing Care in Eye, Ear, Nose, and Throat Disorders. 2nd ed. St. Louis: C. V. Mosby Co., 1967.

- Shafer, Kathleen N., et al. Medical-Surgical Nursing. St. Louis: C. V. Mosby Co., 1967.
- Smith, Dorothy W.; Germain, Carol P.; and Gips, Claudia D. Care of the Adult Patient: Medical-Surgical Nursing. 3rd ed. Philadelphia: J. B. Lippincott Co., 1971.
- Snidecor, John C., et al. Speech Rehabilitation of the Laryngectomized. 2nd ed. Springfield, Illinois: Charles C. Thomas, 1969.
- Treece, Eleanor W., and Treece, James W. Elements of Research in Nursing. St. Louis: C. V. Mosby Co., 1973.

Journals

- Barton, Richard Thomas. "Life After Laryngectomy." Laryngoscope 75 (September 1965): 1408-1415.
- Bird, Brian. "Psychological Aspects of Preoperative and Postoperative Care," American Journal of Nursing 55 (June 1955): 685-687.
- Brophy, Selma F. "A Means of Allaying Patient Anxieties Preoperatively." AORN Journal (February 1968): 44-46.
- Brown, Esther L. "Meeting Patients' Psychosocial Needs in the General Hospital." In Social Interaction and Patient Care, pp. 6-15. Edited by James K. Skipper and Robert C. Leonard. Philadelphia: J. B. Lippincott Co., 1965.
- Brownsberger, Carl N. "Emotional Stress Connected with Surgery." Nursing Forum 4 (No. 4, 1965): 46-55.
- Carnevali, Doris L. "Preoperative Anxiety." American Journal of Nursing 66 (July 1966): 1536-1538.
- Dlouhy, Alice, et al. "What Patients Want to Know About Their Diagnostic Tests." Nursing Outlook 11 (April 1963): 265-267.
- Dodge, Joan S. "How Much Should the Patient Be Told--And by Whom?" Hospitals 37 (December 16, 1963): 66+
- Dumas, Rhetaugh C. "Psychological Preparation for Surgery." American Journal of Nursing 63 (August 1963): 52-55.
- Dumas, Rhetaugh G., and Leonard, Robert C. "The Effect of Nursing on the Incidence of Postoperative Vomiting." Nursing Research 12 (Winter, 1963): 12-15.

- Egbert, Lawrence D., et al. "Reduction of Postoperative Pain by Encouragement and Instruction of Patients." The New England Journal of Medicine 270 (April 16, 1964): 825-827.
- Ernstene, A. Carlton. "Explaining to the Patient." Journal of the American Medical Association 165 (November 2, 1957): 1110-1113.
- Gardner, Warren H. "Adjustment Problems of Laryngectomized Women." Archives of Otolaryngology 83 (January 1966): 57-68.
- Gregg, Dorothy. "Reassurance." In Social Interaction and Patient Care, pp. 127-136. Edited by James K. Skipper and Robert C. Leonard. Philadelphia: J. B. Lippincott Co., 1965.
- Healy, Kathryn M. "Does Preoperative Instruction Make a Difference?" American Journal of Nursing 68 (January 1968): 62-67.
- Hunt, R. Brooks. "Rehabilitation of the Laryngectomee." Laryngoscope 74 (March 1964): 382-395.
- Ingles, Thelma. "Do Patients Feel Lost in a General Hospital." American Journal of Nursing 60 (November 1960): 648-651.
- Jourard, Sidney M. "How Well Do You Know Your Patients?" American Journal of Nursing 59 (November 1959): 1568-1571.
- Kitching, Marilyn R., et al. "If you Ask Me: What Encourages General Duty Nurses to Teach Patients?" American Journal of Nursing 60 (September 1960): 1236.
- Knowles, Lois N. "How Can We Reassure Patients?" American Journal of Nursing 59 (June 1959): 834-835.
- Langlois, Patricia and Teramoto, Vinnie. "Helping Patients Cope with Hospitalization." Nursing Outlook 19 (May 1971): 334-336.
- Larson, Virginia L. "What Hospitalization Means to Patients." American Journal of Nursing 61 (May 1961): 44-47.
- Levine, Dale C., and Fielder, June P. "Fears, Facts, and Fantasies About Pre- and Postoperative Care." Nursing Outlook 18 (February 1970): 26-28.

- Lindeman, Carol A., and Van Aernam, Betty. "Nursing Intervention With the Presurgical Patient--The Effects of Structured and Unstructured Preoperative Teaching." Nursing Research 20 (July-August 1971): 319-332.
- Lynch, Joseph D.; Struck, Reatha M.; and Wermers, Donald F. "Anxiety and Anxiety-Reduction in Surgical Patients." AORN Journal 6 (July 1965): 58-60.
- Magill, Kathleen A. "How One Patient Handled Fear." American Journal of Nursing 67 (June 1967): 1248-1249.
- Meserko, Virginia B. "Preoperative Classes for Cardiac Patients." American Journal of Nursing 73 (April 1973): 665.
- Mohammed, Mary F. "Patients' Understanding of Written Health Information." Nursing Research 13 (Spring 1964): 100-108.
- Nahum, Alan M. and Golden, Joshua S. "Psychological Problems of Laryngectomy." Journal of the American Medical Association 186 (December 28, 1963): 1136-1137.
- Pitorak, Elizabeth F. "Laryngectomy." American Journal of Nursing 68 (April 1968): 780-786.
- Powers, Maryann E.; and Storlie, Frances. "The Apprehensive Patient." American Journal of Nursing 67 (January 1967): 58-63.
- Schmitt, Florence E., and Wooldridge, Powhatan J. "Psychological Preparation of Surgical Patients." Nursing Research 22 (March-April 1973): 108-116.
- Schoenberg, Bernard and Carr, Arthur C. "Loss of External Organs: Limb Amputation, Mastectomy, and Disfiguration." In Loss and Grief: Psychological Management in Medical Practice, pp. 119-131. Edited by Bernard Schoenberg, et al. New York: Colombia University Press, 1970.
- Searcy, Laurel. "Nursing Care of the Laryngectomy Patient." RN 35 (October 1972): 35-41.
- Skipper, James K.; Mauksch, Hans O.; and Tagliacozzo, Daisy. "Some Barriers to Communication Between Patients and Hospital Functionaries." Nursing Forum 2 (No. 1, 1963): 15-23.
- Streeter, Virginia. "The Nurse's Responsibility for Teaching Patients." American Journal of Nursing 53 (July 1953): 818-820.

- Sutherland, Arthur M. "Psychological Observations in Cancer Patients." In Psychological Aspects of Surgery, pp. 75-92. Edited by Harry S. Abram. Boston: Little, Brown, and Co., 1967.
- Sykes, Eleanor M. "No Time for Silence." American Journal of Nursing 66 (May 1966): 1040-1041.
- Thaxton, Adele. "Teaching Expectant Parents What They Want To Know." American Journal of Nursing 62 (May 1962): 112-114.
- Tollefsrud, Valborg E. "We're for Educating Our Patients." American Journal of Nursing 56 (August 1946): 1009-1010.
- Tryon, Phyllis A. and Leonard, Robert C. "Giving the Patient an Active Role." In Social Interaction and Patient Care, pp. 120-126. Edited by James K. Skipper and Robert C. Leonard. Philadelphia: J. B. Lippincott Co., 1965.
- Ujhely, Gertrud B. "The Patient As An Equal Partner." Canadian Nurse 69 (June 1973): 21-23.
- Vincent, Pauline. "Factors Influencing Patient Noncompliance: A Theoretical Approach." Nursing Research 20 (November-December 1971): 509-516.
- Walsh, Thomas F., (ed.) "Sound the Way for Laryngectomees." Patient Care 6 (August 15, 1972): 58-68.
- Weaver, Barbara and Williams, Elsie L. "Teaching the Tuberculosis Patient." American Journal of Nursing 63 (December 1963): 80-82.
- Weiler, M. Cashel, Sister. "Postoperative Patients Evaluate Preoperative Instruction." American Journal of Nursing 68 (July 1968): 1465-1467.
- Weir, N. F. "Theodore Billroth: The First Laryngectomy for Cancer." Journal of Laryngology and Otology 87 (December 1973): 1161-
- Wilson, Robert N. "The Social Structure of a General Hospital." In Social Interaction and Patient Care, pp. 233-244. Edited by James K. Skipper and Robert C. Leonard. Philadelphia: J. B. Lippincott Co., 1965.

Other

International Association of Laryngectomees. Helping Words for the Laryngectomee. New York: International Association of Laryngectomees, 1964.

International Association of Laryngectomees. Rehabilitating Laryngectomees. New York: International Association of Laryngectomees, 1971.

Olson, Mary K. "Postoperative Patients Evaluate Preoperative Instruction." Master's thesis, Texas Woman's University, 1971.