

**EFFECTS OF A  
PSYCHOMOTOR TAXONOMY PERFORMANCE SCALE  
ON STATE ANXIETY IN STUDENT NURSES  
DURING THE EVALUATION PROCESS**

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## Abstract

This study was developed to examine the effect of two evaluation methods on the state anxiety levels of first year nursing students at Medicine Hat College in Southeastern Alberta. The two evaluation methods used were the critical elements method and the introduction of a psychomotor taxonomy scale. The nursing students were non-randomly placed into the control or the experimental group at the time of their registration. The control group was evaluated using the critical elements method and the experimental group using the psychomotor taxonomy scale. The nursing students' state anxiety was measured using the Spielberger (1977) state anxiety scale before and after testing sessions 1, 3, 5 and 9. The results showed that the control group had higher state anxiety scores than the experimental group on both the pre and post test. This showed that the use of the psychomotor taxonomy scale tended to arouse a lower level of state anxiety in the nursing students in the experimental group. Further research is required to study the relevance of this decrease in state anxiety and its effect on actual skill performance.

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# Chapter I

## Introduction

This study compared the effects of two evaluation techniques on nursing students' state anxiety. The study took place at Medicine Hat College and consisted of the August 1987 population of first year nursing students.

The study involved the introduction of a new evaluation technique called a psychomotor taxonomy performance scale which was used during psychomotor skill testing sessions and compared it with the critical elements evaluation technique that was in place.

### **Psychomotor Skill Evaluation**

A look at psychomotor skill evaluation over the years showed that nurse educators have embraced various approaches (Wooley, 1977). The adoption of better methods for skill evaluation have appeared as a constant theme in nursing education. Although the stressful nature of clinical evaluation, both for students (McKay, 1978) and for faculty (Lenburg, 1979; Podrantz, 1980), was recognized and various methods of evaluation of nursing skills had been devised (Wooley, 1977), few investigations have been reported which examine the effect of these evaluation methods on student anxiety.

This nursing instructor had noticed that nursing students became visibly anxious at the evaluation sessions. They said they had difficulty "memorizing" all the steps behind the psychomotor skill about to be tested. They stated they felt sweaty and felt their heart rate increase. Presently a

critical elements method of skill evaluation is in use. The critical elements method of skill evaluation utilizes a list of "critical" components to be used to evaluate if the skill is performed successfully. One of the most difficult tasks for the staff of a competency lab is the development of critical elements for the evaluation of each skill and procedure; a common cause of the difficulty is the inclusion of too many variables. As a result, the student is evaluated on a number of points that are extraneous, unnecessary, or unrelated to the central issue of the given procedure. For example, although giving an explanation of the procedure to the patient is an important nursing activity, it is not essential to the accurate measurement of a patient's temperature (the patient may be an infant or comatose or may not need an explanation). It would, therefore, be inappropriate and unjustified to fail a student on temperature taking because she did not explain the procedure to the patient (Narrow & Buschle, 1982).

Lack of precision and clarity in stating the criteria for the evaluation of a procedure can lead to a situation, for example, in which one lab instructor states that a student's performance is unsatisfactory because she did not use good body mechanics while taking a blood pressure, while a different instructor fails a student for poor medical asepsis although both students successfully accomplish the assigned task: to measure a patient's blood pressure accurately.

This study compared the effect of using a psychomotor taxonomy performance scale with a critical elements approach to skill evaluation as measured by their student state anxiety. The psychomotor taxonomy scale was an adaptation of Bondy (1983) and Reilly's (1980) work. It consists of outcome levels whereby students can see how advanced they performed



each skill. The scale also includes criteria regarding competency of skill performance (Table 1, p. 16).

### **Purpose**

The purpose of this study was to investigate whether using a psychomotor taxonomy scale in evaluating nursing psychomotor skills is effective in reducing student state anxiety.

### **Statement of Research Problem**

Does using a psychomotor taxonomy scale in evaluating nursing psychomotor skills decrease student state anxiety?

The study examined state anxiety in nursing students by comparing two groups of students: an Experimental group who were evaluated with the psychomotor taxonomy scale and a Control group who were evaluated with the critical elements approach. Would the students in the Experimental group have a lower level of state anxiety? If yes, then what would be the implications for the nursing program and what further research could be done to examine the effect of this evaluation procedure and the decreased anxiety on learning and performance?

### **Definitions**

Critical Elements: the term used to refer to specific components of the psychomotor skill considered an essential part of the performance,

e.g.

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING  
NURSING 201A - BLOOD PRESSURE MEASUREMENT  
CRITICAL ELEMENTS

Prepares patient:

    explanation.

    environment.

    position.

Utilizes

    appropriate cuff for size of patient's limb.

    correct cuff position.

    correct arm position.

Manipulates control valve dexterously to permit rapid inflation  
    and well regulated deflation of cuff.

Obtains a palpable systolic reading utilizing radial or brachial  
    pulse when establishing data.

Obtains a reliable systolic/diastolic reading utilizing correct  
    placement of stethoscope over brachial artery.

Psychomotor Skills: in nursing psychomotor skills are those dimensions of nursing practice that entail the ability to behave efficiently in an action situation that requires neuromuscular co-ordination (Reilly & Oermann, 1985). Examples of such skills are administration of an intramuscular injection and performing range of motion exercises.

Psychomotor Taxonomy Performance Scale: a framework for decision making about appropriate levels of performance for each skill.

**Anxiety:** state of apprehensive uneasiness of mind (Fresbach & Weiner, 1982).

**State Anxiety:** a transitory emotional state that varies in intensity and can fluctuate with time. The person can give subjective statements of how nervous they feel at that time.

**Trait Anxiety:** a person's relatively stable index of anxiety proneness in situations perceived as threatening.

**Psychomotor Instructional Package:** a handout given to each student listing the required readings and videos to be studied for each skill. This handout includes a separate section for each skill and all the required work necessary for students.

### **Assumptions**

Lazarus (1966) has documented how anxiety influences our behaviour. High levels of anxiety can affect the students' approaches to learning and their subsequent performance. If, however, the students' perception or cognitive appraisal of the stressor can be made less threatening, their state anxiety can be lowered and their performance less negatively affected. An assumption of this study is that nursing students being evaluated are at the high end of the anxiety scale (as compared with being at the low end where they "don't care") and that a reduction in state anxiety will have a positive effect in performance. That is, students evaluated with the psychomotor taxonomy scale will be less anxious upon entering and leaving the test situation and this will be reflected in an improvement in performance during the test situation.

It is also assumed that nursing students will complete the anxiety instruments in a conscientious and honest manner.

### **Limitations**

The study was conducted only at Medicine Hat College. There was no exploration of the effects of these two evaluation techniques on nursing student state anxiety on students attending other college diploma programs.

Another major limitation of the study was the non-random assignment of the population to the experimental or control groups. The students were registered in May and June preceding the August orientation week. The students were assigned to their laboratory sections at the time of registration. It was not possible for the purpose of this study to alter this registration procedure.

A third major limitation of the study involved cross contamination of groups. The students would compare the evaluation methods among each other. A log book was kept of student comments made to instructors regarding this likely comparison. Students were also questioned regarding the degree and kind of discussion that took place regarding the two methods of evaluation (appendix 4). Thus the study documented the interaction between the groups and recognized this as a limitation that could not otherwise be excluded.

A fourth limitation involved the fact that only the state anxiety of nursing students was examined and that the effects of that anxiety on performance was not examined.

**Summary**

This study examined the effects of using two methods of evaluation of psychomotor skills on nursing student state anxiety. It was a quasi-experimental (Cook & Campbell, 1979) study that took place at Medicine Hat College with the first year nursing students of the diploma program as the sample.

The second chapter reviews the literature. Chapter III gives specific details of the method used in conducting the study. Chapter IV discusses the analysis and Chapter V explores some implications of the study.

## **Chapter II**

### **Literature Review**

#### **Introduction**

Psychomotor skills are an essential part of nursing education constituting a significant portion of nursing interventions. These skills must be learned by the nursing student and subsequently the students are evaluated regarding their skill performance. Psychomotor learning is an egocentric process and is assumed to be enhanced when the learner feels comfortable with himself or herself in the performance.

Since the early 1900's much has been written about different methods used to evaluate student nurses' clinical performance. The many articles and books written on this topic all show a similar basis of concern, that the evaluation process be objective from the student's perspective (Infante, 1981).

The literature review is divided into the areas of: 1) anxiety; 2) effects of anxiety on learning; 3) psychomotor skills in nursing; 4) psychomotor performance taxonomy; 5) history of psychomotor skill evaluation; 6) summary of the literature.

#### **Anxiety**

Anxiety is defined as a state of apprehensive uneasiness of mind (Fresbach & Weiner, 1982). Everyone possesses the trait of anxiety to some degree; people may or may not express or experience anxiety depending on the situation. When the anxiety is expressed, the individual is said to be in a state of anxiety (Kimball, Garmezy & Zigler, 1980). Trait

anxiety can be defined as a long-term predisposition to become anxious, with either high or low frequency depending on the strength of the trait. State anxiety can be defined as a temporary condition of nervousness and apprehension (Spielberger, 1966).

Anxiety thus refers to both a transitory state and an enduring pattern of behaviour. Exposed to anxiety provoking situations (for example: exams, making a speech) the heart rate increases, respirations increase, and muscles tense (Corsini & Marsella, 1983). "State anxiety may be conceptualized as a transitory emotional state of the human organism that varies in intensity and fluctuates over time and is demonstrated by subjective, consciously perceived feelings of tension and apprehension" (Corsini & Marsella, 1983, p. 635).

Trait anxiety refers to individual differences in anxiety proneness. That is, the differences are in the individual's disposition to perceive a wide range of situations as threatening and in the tendency to respond to such threats with state anxiety reactions (Corsini & Marsella, 1983). Whether anxiety will be elicited at any particular time and be manifested in behaviour depends on the strength of trait anxiety and the presence of situational stimuli that will invoke state anxiety.

The influence of trait anxiety and of external stimuli stressors are mediated by the process of cognitive appraisal. If a stimulus is perceived as non-threatening then no anxiety is elicited. If the stimulus is perceived as threatening then the individual may respond with feelings of anxiety (Fresbach & Weiner, 1982).

Research on cognitive appraisal has shown that it is possible to reduce physiological indicators of anxiety by manipulating the cognitive interpretation of an ordinarily threatening stimulus (Lazarus & Averill, 1972). Spielberger (1972) stated that the cognitive appraisal that mediates state anxiety can be modified by situational approaches.

### **Effects of Anxiety on Learning**

There is a widely accepted belief that people who become highly anxious in situations that involve intellectual skills will perform less well than people whose anxiety level remains fairly low (Spielberger, 1966). Spielberger (1966) pointed out that anxiety states are characterized by subjective feelings of apprehension and tension. Those with high trait anxiety will function less well in new situation than those with low trait anxiety. That is state anxiety increases in high trait individuals at a greater rate than in low trait anxiety individuals when presented with a difficult task. Therefore, those with high trait anxiety will have a high state anxiety score in reaction to the testing situation.

Bruning (1968) also found that anxiety causes an individual to use fewer of the available cues for problem solving. It appears that when people are anxious they simply look around less and take in fewer environmental cues. Apparently poor students usually fail to do well in college irrespective of their anxiety. Superior students are sufficiently bright to overcome adverse effects of their anxiety. But within the middle range of intellectual ability anxiety interferes markedly with successful college performance (Kimball, Garnezy & Zigler, 1980). This research cited shows how high anxiety affects student performance. This study will examine



only the state anxiety of the nursing students at the time of testing. The study will not examine the effects of the anxiety on performance.

### **Psychomotor Skills In Nursing**

Psychomotor skills in nursing are those dimensions of nursing practice that require the ability to be efficient in a situation requiring neuromuscular co-ordination (Reilly & Oermann, 1985). Psychomotor skills are "doing" skills which result in performance of a certain action. In testing psychomotor skills emphasis is placed on the specific performance skill which may then require particular teaching, learning and evaluation strategies. Relevant cognitive and affective domains should be developed concurrently through other pedagogical strategies, such as seminars, lectures and quizzes.

Concepts essential to understanding the teaching of psychomotor skills are: performance, learning, ability and skill. "Performance is an action in response to specific cues in the situation" (Reilly & Oermann, 1985, p. 179). Learning is of a more permanent nature as a result of past experience or practice and the learned material is stored in the learner's memory (Reilly, 1980). Kerr (1982) refers to performance as the end product or behaviour seen and learning as an internalized model that allows us to repeat the performance of the skill. Skill relates to a specific task and to the ability to execute that task efficiently (Kerr, 1982). Ability denotes the generalization of a trait the learner possesses and is influenced by heredity and learning (Kerr, 1982). From these definitions it can be seen that ability and skill are not the same phenomenon.

Skill is an important concept in psychomotor performance evaluation. Skill is relative, its definition for a specific task is determined by the nature of the task and the circumstances in the situation in which it occurs. Three classifications of skills are noted in the literature:

1. Fine motor skills: involve muscular co-ordination with precision oriented tasks. Nursing skills include: injections and surgical dressings.
2. Manual skills: involve manipulative tasks that are fairly repetitive and involve eye arm action. Nursing skills include: body hygiene, physical assessment.
3. Gross motor skills: involve large muscles and movement of the body. Nursing skills include: ambulation, range of motion, patient positioning (Reilly & Oermann, 1985).

The goal of psychomotor skill development is more than the ability to perform. The goal is to perform in a consistent, safe manner irrespective of environmental variations.

### **Psychomotor Performance Taxonomy**

During practice of a psychomotor skill changes occur in the learner that signal movement from the novice toward the expert. Several taxonomies have been developed to identify this growth from novice to expert (Simpson, 1966; Harrow, 1972; Dave, 1970). Before adopting a performance taxonomy nursing faculty must realize that not all psychomotor skills applicable to nursing should be developed to the level of professional competency. The reasons for that statement are twofold. First, the quantity of skills is too large and second, the frequency of use is extremely

variable (Reilly & Oermann, 1985). The outcome level selected for each skill must be realistic in terms of attainment for the students. The designation of such a level does not preclude the student from advancing further if the opportunity permits. Students should be encouraged to advance to higher levels in skills when experience is available. The outcome level specified must be perceived solely at that minimum acceptable level, not the full potential for any one student.

Reilly (1980) demonstrated the use of a taxonomy in nursing delineating five levels of performance. Her work was based on that of Dave (1970). Her taxonomy includes five levels of performance as follows:

Level	1.0	Imitation
	2.0	Manipulation
	3.0	Precision
	3:1	Precision--Laboratory
	3:2	Precision--Clinical
	4:0	Articulation
	5:0	Naturalization

In the first two levels behaviour is generally gross and lacking accuracy. Level 3 is divided into 3:1 (laboratory learning) and 3:2 (clinical field). In both the performance level is the same, however, it is recognized that differences are apparent due to evaluating in a controlled setting and uncontrolled setting. The attainment of Level 3:0 in the laboratory does not guarantee the same performance seen in the clinical area, where there is less environmental control.

Level 3 also indicates that every skill has certain principles essential for safe practice. It is essential that these principles must be identified and considered non-negotiable, i.e., must be error free. It is also noted that the logical sequence of actions may not be the same as specified, but as long as the learner can support her performance based on the identified principles the action level is met.

Level 4 adds another dimension, speed and timing, in skill performance. One may be accurate and skillful in obtaining a blood pressure, but if it takes an hour to perform the task, one cannot be considered to be skilled. Reilly and Oermann (1985) believe accuracy should precede speed. Early emphasis is appropriate for psychomotor momentum, but this is not a major characteristic of psychomotor skills in nursing. Therefore, accuracy is emphasized first, and speed comes with practice. Time can be a factor in laboratory evaluation, the significance of this can best be demonstrated in the clinical area.

Level 5 is where the learner no longer concerns herself with the "how to", and the performance reflects professional competence.

### **Development of Criteria**

The taxonomy scale alone lacks essential criteria regarding characteristics of competency. Bondy (1983) clustered these characteristics into three major areas:

1. Professional standards and procedures for the behaviour.
2. Qualitative aspects of performance.
3. Assistance needed to perform the behaviour (p. 378).

Professional standards are those set by the nursing profession to ensure safe, accurate skill performance. Qualitative aspects of performance defines the degrees of skill development which includes the time period, and energy expenditure. Assistance needed to perform the behaviour refers to the type and amount of assistance required from the instructor. Cues can be supportive ("that's right") or directive indicating what to do or say next, or can correct an ongoing activity. Therefore, cues refer to what is necessary to maintain or encourage the student's performance through verbal statements or physical cues. Table 1 (p. 16) indicates this researcher's adaptation of the combination of Reilly's (1980) taxonomy and Bondy's (1983) criteria as a possible evaluation tool for use in psychomotor skill testing. The combination of the taxonomy scale with Bondy's defined criteria was used to evaluate the experimental group's psychomotor skills.

### **History of Psychomotor Skill Evaluation**

The question of how to judge skill competency has been asked by nurse educators at least as far back as the turn of the century. Nutting (1900) stated that students would have to prove their ability to perform skills before advancing in their training. The actual testing and method used was not stipulated to teacher or student. In 1920, Gilman (1921) introduced the "Students' Efficiency Record". This record, which was compiled by the head nurse, consisted of a list of skills the students might do. The record also included a list of personality traits and professional fitness characteristics. The contents of this record were never shared with the students in a formative

Table 1

Psychomotor Performance Scale

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy. Gross movements, Unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe.	Continuous verbal and physical cues. No patient explanation. All explained by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe. Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behaviour, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation	Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.

manner. The students therefore had little or no feedback on an ongoing basis regarding their competency level. The thirties saw the introduction of a point value system to evaluate students' performance (Eickman, 1934). The aim of this evaluation method was to give student nurses more effective "educational, professional, and personal guidance toward increased adjustment" (McClelland & McManus, 1942, pp. 579-584).

Anecdotal notes were introduced in the 1950's. The anecdotal notes were used by head nurses to collect information about the amount of work students did versus the quality of their work. Up to and including the 1950's the learning, practicing, and evaluating of psychomotor skills was done in the hospital. About this time nursing educators realized that it was difficult for students to learn when faced with the constant stimulation of the clinical setting. It was also recognized that the patients have the right to be cared for by prepared practitioners (Smith, 1976).

Rines (1963) contended that evaluation of nursing skills should be based on program objectives and observed behaviour. Anecdotal notes, checklists, rating scales and patient observations were to be used to give a complete picture of the students' learning. Rines' (1963) main emphasis was that the student nurse be seen as a learner rather than a performer. In 1963 nurse educators adopted the critical elements technique developed by Flanagan (1963). The tool was based on a task taxonomy consisting of twelve areas of behaviours, some with up to five subdivisions. The goal of this tool was to record effective and ineffective student incidents. The problem of how to grade this data was not discussed and its popularity was short-lived (Wooley, 1977).

Anderson and Saxon (1968) and Clissold and Metz (1966) devised taxonomies of nursing actions consisting of check lists for recording observable behaviours with successful performance for each procedure. This process entailed breaking every nursing procedure into every observable step and proved to be too cumbersome.

Frejlack and Corcoran (1970) described how they used simulation in the nursing arts laboratory for psychomotor skill evaluation. In the testing situation the student was given a card with instructions of what she was to do. As the student worked she was evaluated according to previously established criteria for the item.

The question of normative versus criterion-referenced evaluation has been explored by Bower (1974) and Krumme (1975). Krumme believed that normative referenced tools failed to provide adequate measurement of the quality of nursing care. She stated,

"Norm-referenced evaluations determine the quality of a nurse's performance in relation to: (1) the performance of another individual or of some kind of 'ideal' model on the same measuring device; (2) the degree of guidance needed; (3) the frequency with which the desired behaviours occur"  
(Krumme, 1975, p. 764).

Krumme and Bower also believed criterion-referenced measurement to better judge an individual's performance criteria. They believed better criterion-referenced measures indicated to the evaluator and evaluated what tasks an individual could perform, or what a learner had achieved, and therefore represented a more effective way of evaluating clinical nursing practice. Bondy (1984) backed Krumme's research by showing that crite-



riterion-referenced measures indicate what tasks an individual can perform or what a learner has achieved and that they represent a more effective way of appraising performance.

Criterion methods of evaluation clearly depict how well the students performances measure up to what is expected and helps them direct their energies for their own growth by describing the expectations at subsequent levels (Bondy, 1984). Students learn and practice skills in audiovisual labs until they are ready to use them in the clinical area. The patient's right to protection from the inexperienced student is recognized, as is the right of the student to be awkward at first in private (Smith, 1976).

In summary the references cited in this section of the literature review deal with the "how to" evaluate students' skill performance. The majority of the articles refer to the actual clinical field evaluation. No references were found stating the effects of the different evaluation methods on student anxiety or how to best evaluate the student or students in the nursing arts laboratory.

### **Summary**

The literature review shows that anxiety can affect both learning and the subsequent performance level of students.

Psychomotor skills are an integral part of nursing practice, and must be evaluated throughout a learner's experience. It was stated by Reilly and Oermann (1985) that psychomotor skill learning is egocentric and requires that the learner feel comfortable in the performance before the skill can be related on a more sophisticated level in the sphere of nursing practice. Bondy (1984) found that using criteria of levels of performance does in-

crease accuracy and reliability in evaluating a student's level of competency. Criteria methods of evaluation clearly depict how well the student's performance measures up to what is expected and helps the student direct their energies for growth by describing the expectations at subsequent levels (Krumme, 1975). The literature has looked at methods of evaluating student performance. However, no literature was found that examined the effects of different methods of evaluation on students' anxiety.

# **Chapter III**

## **Methodology**

### **Introduction**

Chapter III describes the methodology used in the study. This was a quasi-experimental study to determine the effects on nursing students' state anxiety of using a psychomotor taxonomy scale based on Reilly's taxonomy (1980) to evaluate student nurses skills.

### **Instructional Setting**

The study was conducted at Medicine Hat College located in the southeastern corner of Alberta, Canada. The college is a community college offering a full range of university transfer, diploma, career and upgrading programs.

The study took place within the nursing department which offered a diploma program in nursing of two and one-half years duration. The students were required to take university transfer courses in psychology, sociology, philosophy, natural science and microbiology. The students also took eight required nursing courses during the entire program.

During their first year in the diploma program students were required to practice approximately twenty psychomotor skills. These skills were learned by the student using a self-directed learning model. An audiovisual lab was available for students to view tapes of nurses performing the skills. They had a nursing techniques skill book that explained the skill and gave sequencing for the skill performance.

The students practiced on their own and were responsible for bringing their questions and/or problems to the nursing arts laboratory instructor for clarification before the testing session.

The practice evaluation of these psychomotor skills took place in the nursing arts laboratory. This setting consisted of five cubicles that were made to look like a patient hospital setting. There was a hospital bed, blood pressure manometer on the wall, overbed table and bedside table in each cubicle.

### **Design**

The study involved the first year nursing students at Medicine Hat College. The students were assigned to a nursing arts laboratory session time at registration. The students assigned to the control group were those assigned laboratory sessions on Monday and Tuesday and the students assigned to the experimental group were those assigned to the Wednesday and Thursday laboratory session. The students all received the same weekly theory class, quiz and seminar. The group was then divided in half. One half has a nursing arts laboratory practice session on Monday afternoons and their testing on Tuesdays. The other half had a nursing arts laboratory practice session on Wednesday afternoon and testing on Thursday. The control group consisted of the nursing students in the Monday-Tuesday session and the experimental group were the Wednesday-Thursday group.

Those assigned to the control group were addressed by the researcher. This information session dealt specifically with the use of the nursing arts laboratory and the psychomotor skill instructional package (Appendix 1). The students were also informed that they would be tested

using the critical elements method of evaluation (Appendix 1). The students received copies of the critical elements for each psychomotor skill to be learned. These critical elements were part of the instructional package that they received.

The experimental group received the same basic address from the researcher. The change occurred in the evaluation method explanation. These students were given the same instructional package, however, they received a copy of the psychomotor taxonomy scale instead of the critical elements (Appendix 2). They were then shown that a level of performance had been established for each skill and the criteria involved to reach this pass level. The control group received the same instructional package, however, nowhere was an explanation as to their expected level of performance included. Both groups received information regarding the principles essential to each skill. For example, the basic principles of medical asepsis for handwashing technique were included in both instructional packages.

Both groups were informed of the experiment. The control group knew that they were being evaluated in the same manner as their predecessors. The experimental group knew that a new evaluation method was used with them.

### **Sample**

For this study all nursing students in the first year of the diploma nursing program at Medicine Hat College were included. This population was chosen due to the ease of access for the researcher. The study sample was thirty-six students who entered the program in August 1987. The age

range of the students was from eighteen years to forty years. The ratio of men to women was one in forty.

All forty students attended a week orientation to the program. During this week the two groups were informed separately about the study. Each group was given instructions about the nursing art laboratory and the psychomotor skill instructional package. Each group was given detailed information on the evaluation process used for testing in the laboratory.

### **Data Collection Instruments**

Trait anxiety was measured using the A-trait scale of Spielberger (1977) (Appendix 3). The trait anxiety was measured during the students' week of orientation in August 1987. In accordance with theoretical attributes of state and trait anxiety, there was a substantial amount of research that showed trait anxiety is a stable measure while state anxiety varies with changes in situational stresses (Fresbach & Weiner, 1982). There is evidence that those who differ in trait anxiety also differ in state anxiety scores. Those with a high trait anxiety score tend to score high on state anxiety scores. By assessing the trait anxiety scores of each member of the control and experimental groups the study would indicate if one group tended to have higher trait anxiety than the other. Subsequently if high state anxiety scores were found, this could be related back to the trait scores. This trait anxiety measurement gave the study a picture of the anxiety trait typicality of the groups.

The primary data collection instrument for this study was the state anxiety scale (Appendix 4) designed by Spielberger, Gorsuch and Luschene (1977). The A-State scale consists of 20 statements requiring subjects to

indicate how they feel at a particular moment in time. The A-State scale can be used to determine the actual levels of A-State intensity induced by stressful procedures. The items are designed so the range of possible scores varies from a minimum score of 20 to a maximum score of 80. The subjects respond to four categories for the A-State scale: (1) not at all; (2) somewhat; (3) moderately so; (4) very much.

Some of the A-State items are worded in such a manner that a rating of 4 indicates high level anxiety, (e.g. I feel upset). Other items are worded so a high rating indicates low anxiety (e.g. I feel confident). For items on which a high rating indicates low anxiety, the scoring weights are reversed. The A-State scale is balanced for acquiescence set, with ten directly scored and ten reversed items. The reversed items are: 1, 2, 5, 8, 10, 11, 15, 16, 19, 20.

### Reliability

Spielberger and Gorsuch (1977) performed test-retest correlations on the A-State scale: the results were relatively low, ranging from 0.16 to 0.54, with a median ratio of only 0.32. Given the transitory nature of anxiety states, measure of internal consistency such as coefficient alpha proved to be a more meaningful index of the reliability of the A-State scales. These reliability coefficients ranged from 0.83 to 0.92. The test-retest correlations for the A-trait scale were reasonably high ranging from 0.7 to 0.86. The coefficient alpha's for the A-trait scale ranged from 0.86 to 0.92.

### Validity

The development of the A-trait and A-state anxiety scale was begun by C. D. Spielberger and R. L. Gorus in 1964. Construct validity of the test items took fifteen steps. The first step involved the administration of 124 items to students to indicate whether or not the item described "how they felt now or generally". By the fifteenth step, 40 of the original 124 items had survived and 20 items were acceptable for the A-trait form, and 20 for the A-state form. The correlation coefficients of the A-trait items were highly consistent for each item in all three normative samples. The A-state items also exhibited a high degree of consistency (Spielberger & Gorus, 1979).

Construct validity of the A-State scale was tested using 977 undergraduate college students who were asked to complete the form with the standard instructions. They were then asked to respond according to how they would feel prior to a final exam. The mean score for the A-State scale was higher (54.9) than in the norm (40.2) for both males and females. Another testing for construct validity was done in 1966 by Lazarus and Opton. Students were asked to complete the form in four different situations. (1) The normal conditions; (2) following a 10 minute period of relaxation training; (3) exam conditions; (4) following the viewing of a stressful movie. The mean scores for the A-State scale were lowest in the "relax" condition and highest after viewing the stressful movie. The mean scores for females "relax" was 29.6 and males 32.7; the mean scores for males "movie" was 40.03 and females 60.94; and the mean scores for male "exam" was 43.01 and females 43.69.



## **Variables**

The primary variable of interest for this study was the state anxiety for the first year nursing students. This state anxiety was measured by using the A-State anxiety scale developed by Spielberger et. al. (1977). Comparison of state anxiety scores at the various testing sessions constituted the heart of the data analysis.

Other variables of interest for the study included:

1. Age of the student
2. Course load of the student
3. Ability
4. Trait anxiety typicality

There was no research in the literature that the first two influencing variables affect state anxiety. These variables were chosen on the basis of the researcher's teaching experience. The researcher was interested in investigating the degree of correlation between state anxiety and variables specific to the area of nursing psychomotor skill performance. A cover sheet was placed on the A-State form requesting demographic information including these variables (Appendix 4).

Ability as defined by Kerr (1982) is the generalization of a trait the learner possesses and is influenced by heredity and learning. Frequently a student's ability is measured by her achievement as seen by the attained G.P.A. score. Spielberger et. al. (1977) tested college students to see the effects of their A-State anxiety scale scores on measures of aptitude and G.P.A. His results showed that within the middle range of student intellectual ability, anxiety interfered markedly with successful performance. Since most college students are within the intermediate range of intellectual

ability, Spielberger's results suggest that some students who could get through college successfully fail because of the eroding effects of anxiety.

Felts (1986) through her research found that the high school G.P.A. of students was a significant predictor of success for nursing students at a community college. Nursing literature supports the predictive power of traditional cognitive measures such as pass/fail, G.P.A., and the achievement level of nursing students (Beale & McCutcheon, 1980; Kessinger & Munjas, 1982; Sharp, 1984). There was nothing found in the nursing literature regarding the correlation of ability and anxiety.

This researcher explored the question as to whether or not a significant correlation existed between the student's ability and her A-State anxiety scale scores. Their entrance G.P.A. and end of semester G.P.A. were considered along with their pass/fail grade from the psychomotor skill evaluation sessions. The G.P.A. scores and pass/fail grades were regarded, for this study, as the ability measurements.

Gender was not examined in this study as an influencing variable due to the extremely small number of male students.

### **Procedure for Data Collection**

In August 1987 the students entering the first year of nursing education at Medicine Hat College were assigned a laboratory session time. The control group consisted of students in the Tuesday session and experimental group were students in the Thursday session.

Before each individual testing session the instructor involved with the skill evaluation had each student complete the A-State form. Immediately following the testing each student again completed the A-State form.

Therefore, both groups were tested for A-State anxiety before and after each psychomotor evaluation session.

Each student was given a number from 1 to 40 to use on their response sheets. This insured proper matching of pre- and post-testing scores. The numbers were assigned by another faculty member who was not involved in the research. In the event a student forgot the number that faculty member was contacted and anonymity maintained.

### **Protection of Human Rights**

The ethics of this study was reviewed by both the Research Committee of Medicine Hat College in conjunction with the nursing department head, as well as by the University of Lethbridge.

Anonymity for the subjects was maintained. Their names did not appear on the answer sheets and the information was not identifiable in any way.

The subjects were informed about the study three weeks before it began in an effort to give the researcher time to clear any misconceptions they had. The subjects in the experimental group were given the option of being tested using the Critical Elements technique. No one chose this option.

### **Hypothesis**

The study examined the following questions. Will pre-test and post-test scores of A-State anxiety be lower in students evaluated using a criterion-referenced psychomotor taxonomy scale during psychomotor skill evaluation? Will pre-test and post-test scores of A-State anxiety be

significantly higher in students evaluated using the critical elements testing method? The research hypothesis to be tested became: there will be no statistical difference between anxiety scores of the control and experimental groups over the duration of the study.

### **Data Analysis**

The students were tested each week in the laboratory for a total of nine sessions. The researcher had the students fill the A-State form before and after test sessions 2, 4, 6, 8. The reasons for this were two fold. First it was this researcher's belief that a student checking a questionnaire eighteen times would give less accurate answers, secondly, testing the second, middle, and end of the semester testings would give a clear picture of students' progression. Scores were expected to be similar for both groups at the beginning and then show a greater difference with time.

Following the collection of the data the responses from the A-State scale were scored. The A-State Scale was designed so that a high score indicated high level anxiety and a low score a low level of state anxiety.

A clerical approach as recommended by Spielberger et. al. (1968) was used to calculate the scores. A key was made for the direct and reversed items. First it was necessary to determine the sum of weighted scores for the direct items. Second, the sum of the weighted scores for the reversed items were subtracted. Third, the appropriate constant (50) was added. The range of possible scores varies from a minimum score of 20 to a maximum score of 80.

The pre- and post-raw scores for state anxiety of the control and experimental group were shown on a scatterplot graph for the scores on tests

2, 4, 6, 8. This graph was an indication of the stability of the state anxiety at each test session and whether or not the two groups were beginning to differ in their level of state anxiety.

The means and standard deviations were calculated and the results illustrated on a box and whisker plot. By looking at the means it was possible to tell if the experimental group mean score decreased relative to the control group. The standard deviation was examined to see if there was a change in variability for either group.

The procedure of multiple linear regression was considered for comparing the anxiety scores with each of the identified variables of age, course load, ability and trait typicality. Multiple regression is a procedure "to study relationships between several independent variables and one dependent variable" (Borg, 1981, p. 121). The benefit of using multiple regression was that the researcher could compare the relationships between several independent variables and one dependent variable.

After the testing sessions were completed, the researcher qualitatively examined student perceptions and the laboratory instructor's perceptions of the tools. Five students from the control group and five from the experimental group were randomly chosen for a taped interview. The interview was conducted by a research assistant. The laboratory instructor was asked essentially the same questions by the researcher (Appendix 5). This information was described by using direct quotes from the participants.

## **Chapter IV**

### **Data Analysis**

#### **Introduction**

The data collection and analysis during the course of this study involved four steps. Step one analyzed the results of the state anxiety scores of the experimental and control groups. This analysis focused on the question "will using a psychomotor performance taxonomy scale decrease student state anxiety?". Step two analyzed the effects seen on state anxiety due to the intervening variables of age, ability and course load. Step three discussed the verbal comments made by the students and the nursing arts laboratory instructor during and after the study regarding how they viewed the different methods of evaluation. Step four described incidents dealing with faculty difficulties with the study that occurred during the implementation of the study.

This chapter of the paper describes the data collection process for each step as well as the analysis. The implications of the results of all four steps will be addressed in Chapter V.

#### **Step One: The Problem Question**

##### **Introduction of Students to Study**

On August 27, 1987, the researcher met with the Experimental (N=19) and Control (N=20) groups. At that time the study was explained to the students and they were given the opportunity to participate or withdraw from the study. Of the thirty-nine students only one chose not to be

part of the study. The students were informed that the study would begin the week of September 22, 1987, and that a notice would be placed outside the nursing arts laboratory reminding them of the dates.

Students from both the Experimental and Control groups were asked to complete the Spielberger (1977) state anxiety scale before and after each testing session. A poster informing the students of the dates and location for the completion of the pre- and post-test Anxiety Scale was placed on the bulletin board outside the nursing arts laboratory.

The students completed the pre-test and post-test anxiety scale in a small seminar room one door away from the nursing arts laboratory. The students completed the pre-test scale immediately before their testing in the laboratory and the post-test scale following their testing. They then placed the completed forms in the appropriate envelope on the table.

#### Trait Anxiety Typicality

During the first session students were also asked to complete the Spielberger (1977) trait anxiety scale. The first page of the questionnaire (Appendix 2) asked the students to comment as to whether or not there was something happening in their lives that could influence their score. One student from the control group wrote about experiencing a depressive reaction including suicidal thoughts. This student was reported by number to the department head. The department head identified the student to herself and not to the researcher and then referred this student for counseling.

In the experimental group four members stated they were experiencing marital problems and one student wrote she had just broken up with her boyfriend.

The normative mean score for trait anxiety of female college students is 38.2 (Spielberger, 1977). The mean trait anxiety score for the Experimental group was 41.3 and the mean score for the Control group was 35.7. Spielberger (1977) postulated that individual differences in anxiety proneness can be reflected through trait anxiety scores. That is, a high score on the trait anxiety scale indicates a greater degree of anxiety proneness. Therefore, this calculation was done to assess the differences between the groups in anxiety proneness, before assessing the current level of anxiety during the laboratory evaluation sessions.

Two t-tests were performed (Glass & Stanley, 1970 pg. 293) comparing the control and experimental groups with the norm. The control group t-test result was 0.875. This result showed no significant difference (at the 0.05 level of significance,  $t=1.74$  with 17 df) between the control trait anxiety mean and the norm mean. For the experimental group the t-test value was -1.975. This showed a statistical difference existed between the experimental group trait anxiety and the norm population (at the 0.05 level of significance,  $t=1.74$  with 17 df). The experimental group had a trait typicality greater than expected within a normative population. The comparison of trait anxiety means between the control and experimental groups is shown in Figure 1. Trait anxiety has been defined as a relatively stable predisposition to become anxious when faced with a perceived threat. The box plot diagram illustrates a higher degree of trait anxiety existed within the experimental group when compared to the trait anxiety of the control group. A further t-test was performed comparing the trait anxiety between the control and experimental groups. This t-value was +2.03 ( $t=1.68$ ,  $df=34$ , 0.05 level of significance). This further illustrated that a



significant statistical difference existed in the trait anxiety scores between the control group and the experimental group.

### State Anxiety Score Analysis

Initially the researcher examined the frequency distribution of the number of students who completed the pre- and post-test scales throughout the study. This frequency distribution (Figures 2 and 3) shows that approximately the same number of students from each group completed the pre- and post-test state anxiety scales at each testing. The control group tended to complete the pre-state anxiety scale forms at a more consistent rate than the experimental group. One explanation for this finding could be that the instructor working with these students reminded them of the scale during their weekly seminar session. Another possibility is that the higher trait anxiety of the Experimental group was manifested in a reluctance to have their state anxiety measured.

Next the raw state anxiety scores for each individual student were calculated using a simple clerical approach as outlined in the methodology section. The mean state anxiety score for both groups at each of the four testing sessions was calculated. Figures 4 and 5 permits a comparison between the means of the pre- and post-state anxiety scores for the control group and the experimental group. The Control group mean state anxiety score showed a greater degree of differentiation between pre- and post-test scores than did the Experimental group. These graphs show that the experimental group pre- and post-anxiety scores generally decreased over time. They entered and left the initial situation with higher state anxiety scores than during the second or third testing. Session four did show an

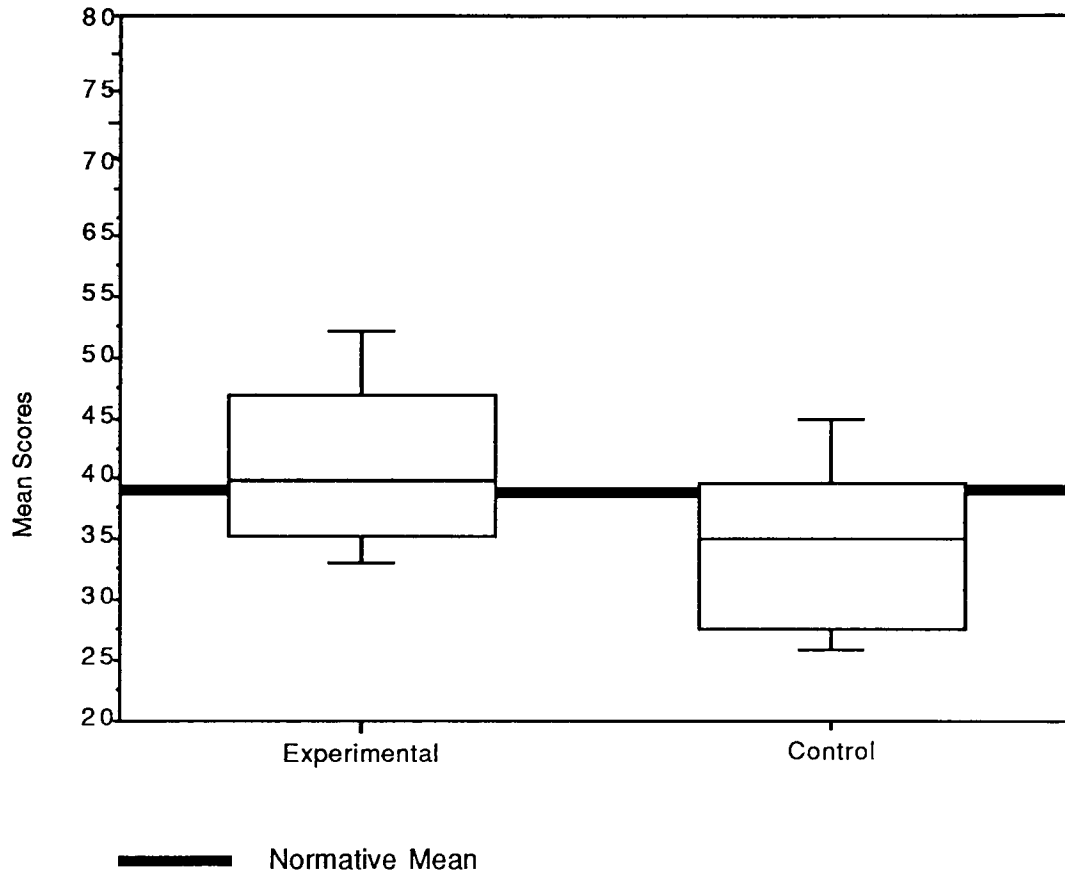


Figure 1. Comparison of Mean Trait Scores

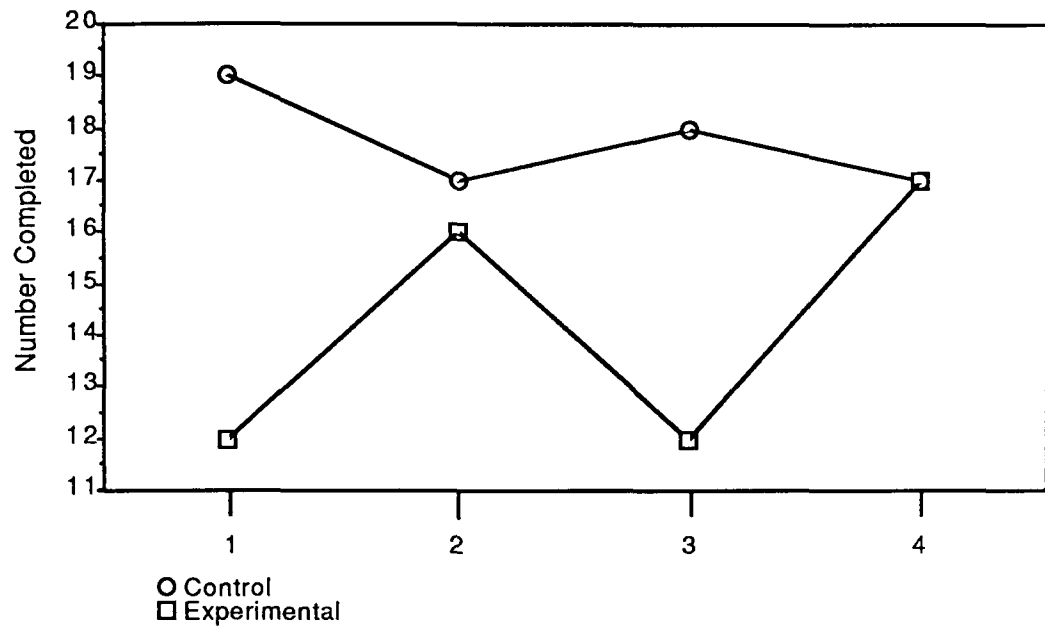


Figure 2 Frequency of Pre-Test Completion

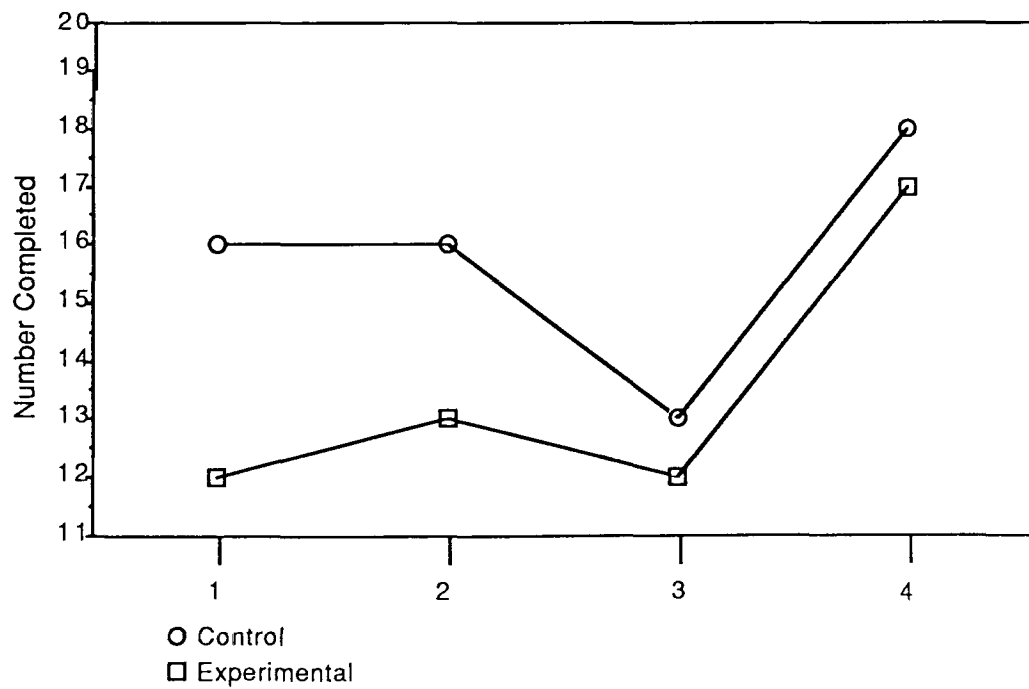


Figure 3. Frequency of Post-Tests Completed

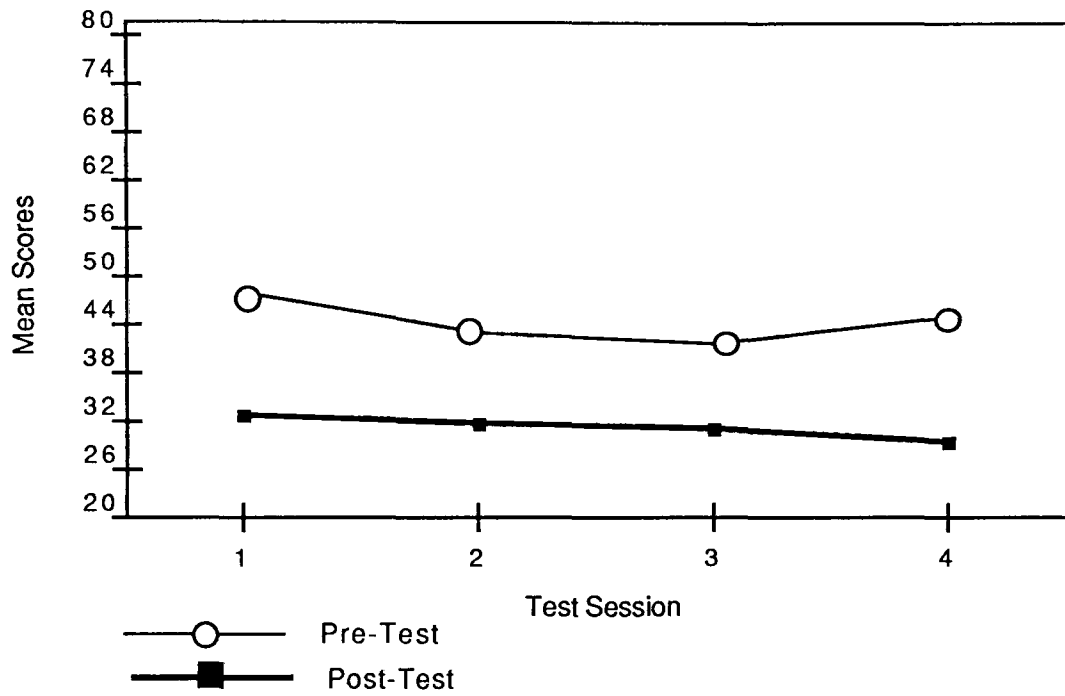


Figure 4. Comparison of Control Group Means

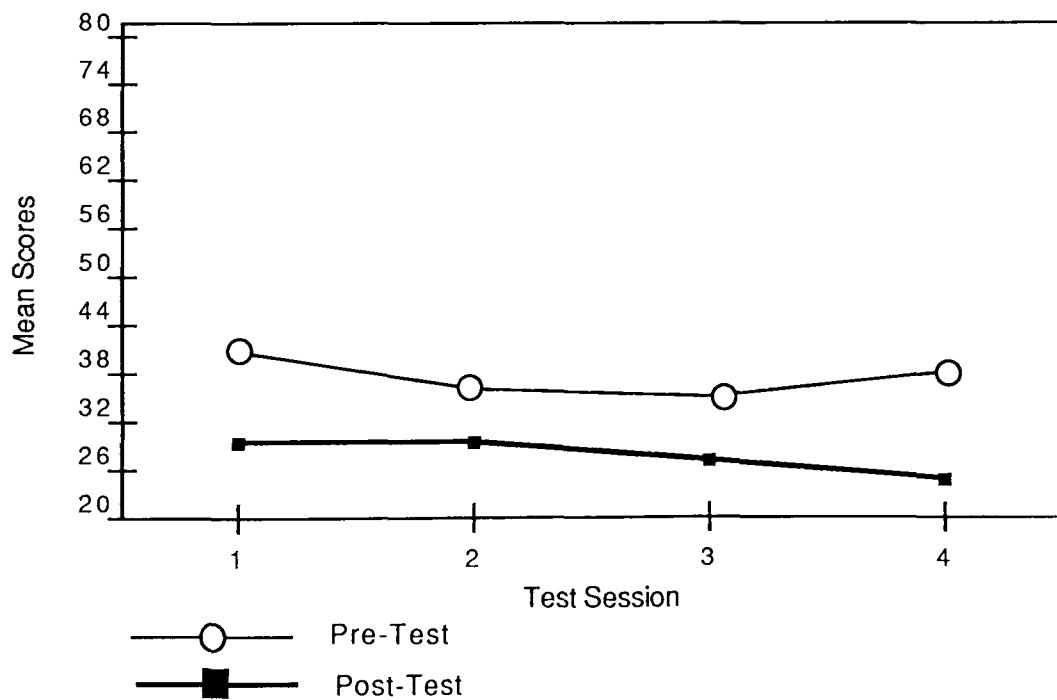


Figure 5. Comparison of Experimental Group Means

increase in state anxiety, however the mean score was lower than at the initial testing.

This sudden increase could perhaps be explained by the following two factors. First, there were scheduled exams and term assignments due that week. Second, all four students with the high state anxiety scores entered the session noting on the demographics sheet (Appendix 2) that they felt they would not pass the evaluation session.. These students fearing failure had pre-state anxiety scores which were in the sixties and seventies.

Further visual data analysis was done by drawing box and whisker plots. Figure 6 shows that within the control group the pre-state anxiety scores remained between the forty to forty-eight range. The post-state anxiety scores remained between thirty to thirty-three. There was less variability on the post-test than the pre-test. Therefore the pre- and post-test anxiety scores within the control group tended to remain at an even level throughout the semester.

The box and whisker plots of the experimental group pre- and post-test state anxiety scores (Figure 7) indicates a steady decrease in pre-test state anxiety, with the one exception in session four. This steady decrease shows that the Experimental group over time entered and left the test sessions experiencing less state anxiety.

Figures 8, 9, 10, and 11 show the comparison of scores between the groups at each test. During session one (Figure 8) the control group entered the test with a higher level of state anxiety than the experimental group and left with a marked decrease in their state anxiety score.

The Experimental group entered session one with a lower state anxiety score and left the situation with a decreased state anxiety score. The dif-

ference in the scores of the pre- and post-state anxiety scores was not as marked a decrease as seen in the Control group.

During sessions two and three (Figures 9 and 10) the control pre-test state anxiety scores remained within the forty to fifty range, whereas the Experimental group decreased to the low twenties by session three. Therefore, with time the experimental group entered and left the testing sessions experiencing less state anxiety than the control group.

The scattergram of the mean state anxiety scores of the Control and Experimental groups (Figures 2 and 3) further illustrated that the state anxiety scores in the control group remained higher than the experimental group during both pre- and post-testings.

A t-test for independent groups was performed to determine the differences between the control and experimental groups' scores of state anxiety for each pre- and post-test. Results of these t-tests are shown in table 2 (p. 44). It was recognized that the groups were not randomly chosen for this experiment. For the purposes of this research it was assumed that the t-test would not be significantly different had the members of the experimental and control groups been randomly selected. The t-test showed that no significant difference was found with the pre-testing between the experimental and control group for state anxiety. A significant difference was found between the groups in state anxiety with the post-tests. The treatment, in this case the evaluation method, probably did make a difference in state anxiety.

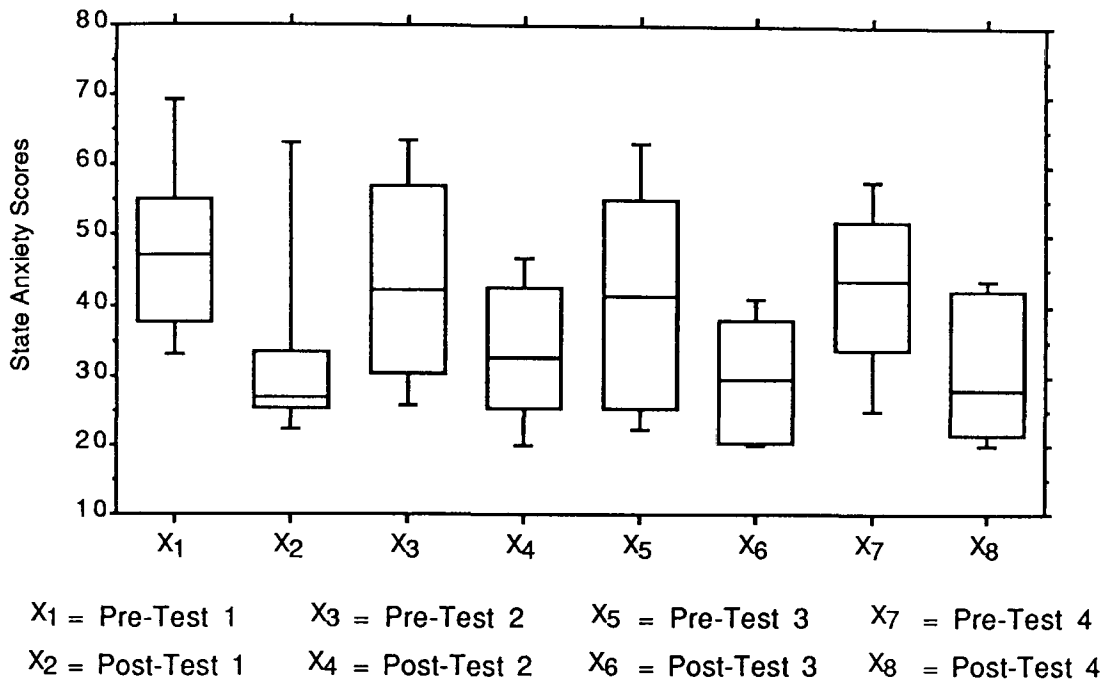


Figure 6. Control Group Pre- and Post-Test Scores Box Plot

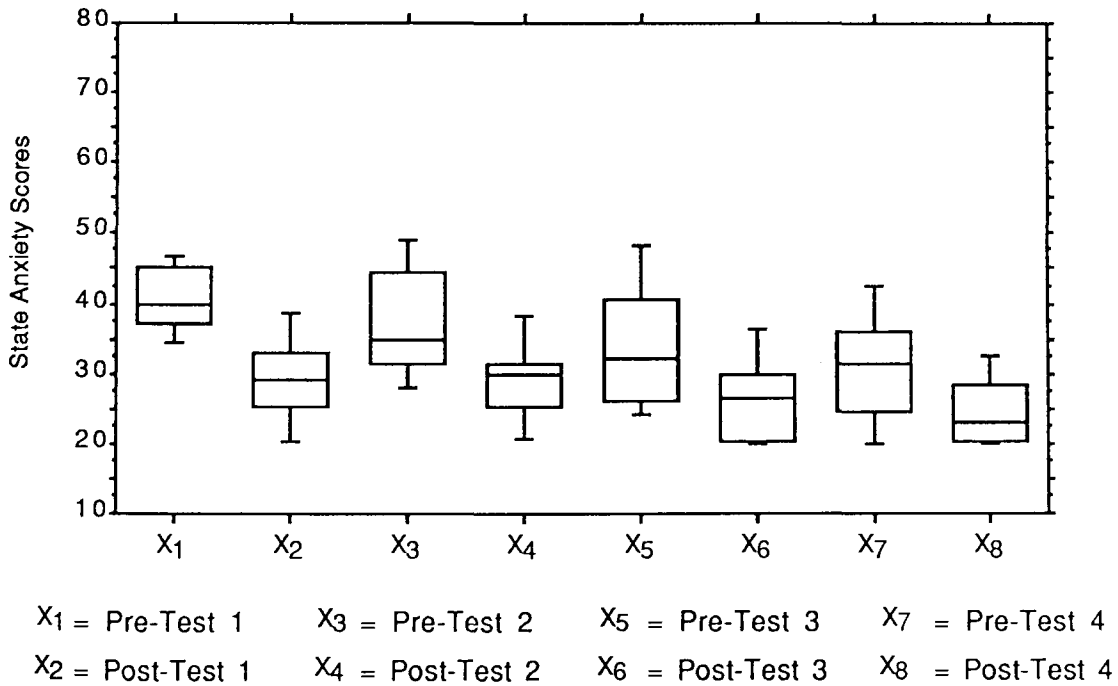


Figure 7. Experimental Group Pre- and Post-Test Scores Box Plot

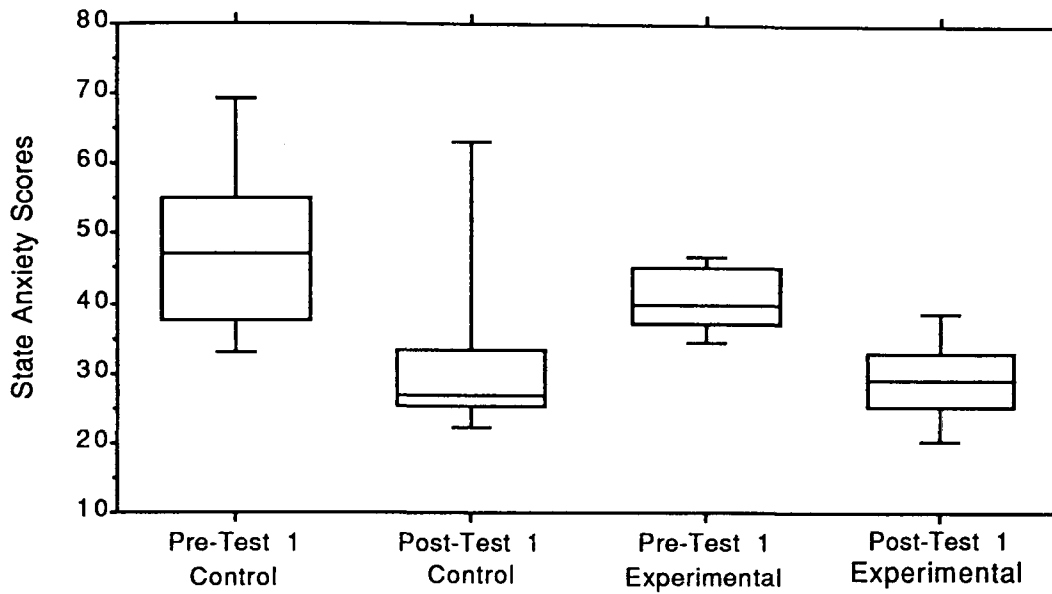


Figure 8. Comparison of Scores between Control and Experimental Groups for Session One

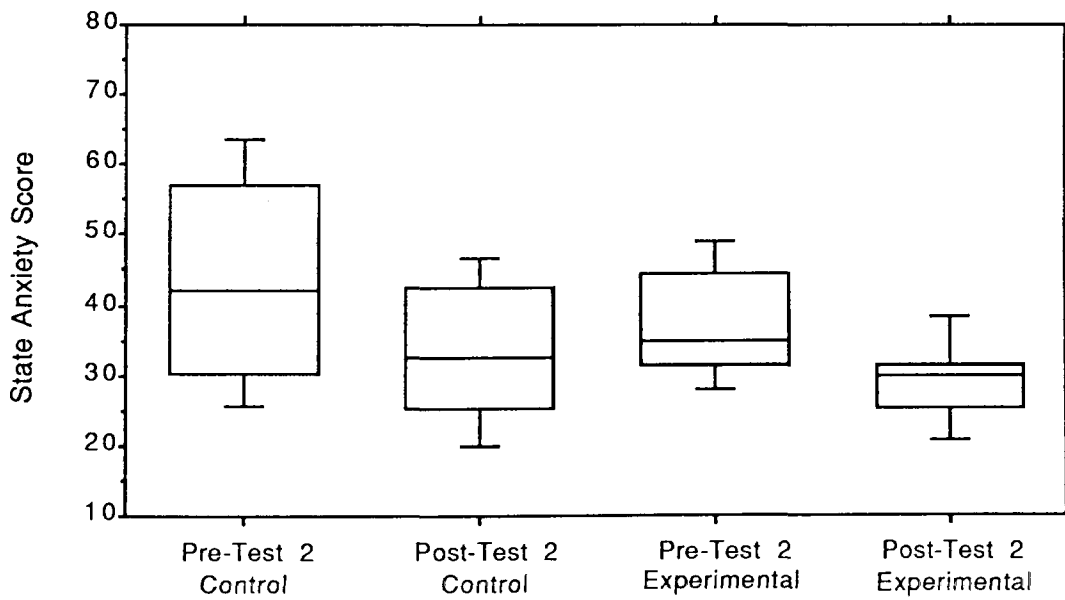


Figure 9. Comparison of Scores between Control and Experimental Groups for Session Two



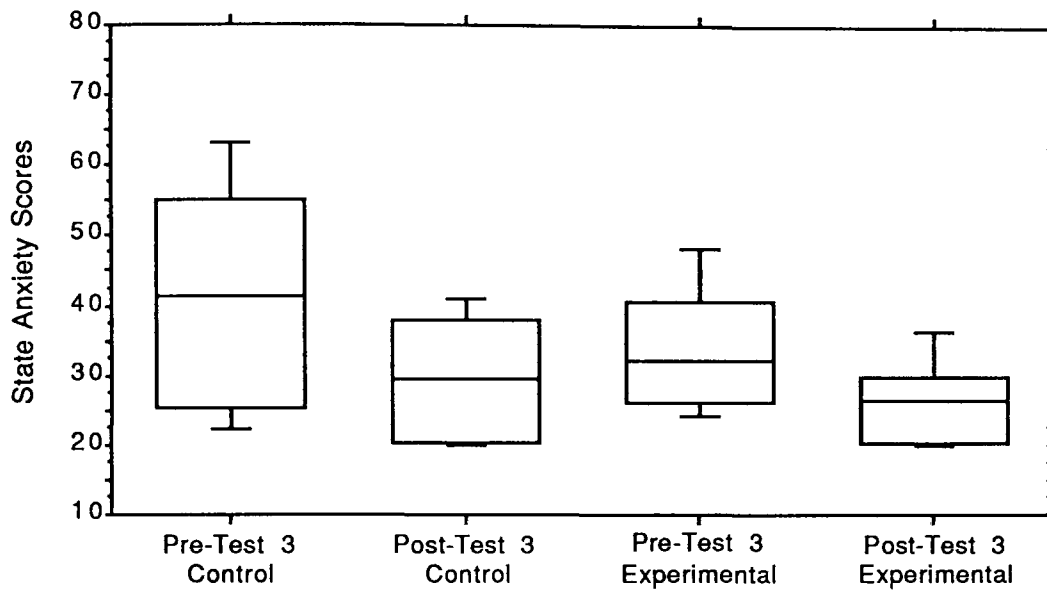


Figure 10. Comparison of Scores between Control and Experimental Groups for Session Three

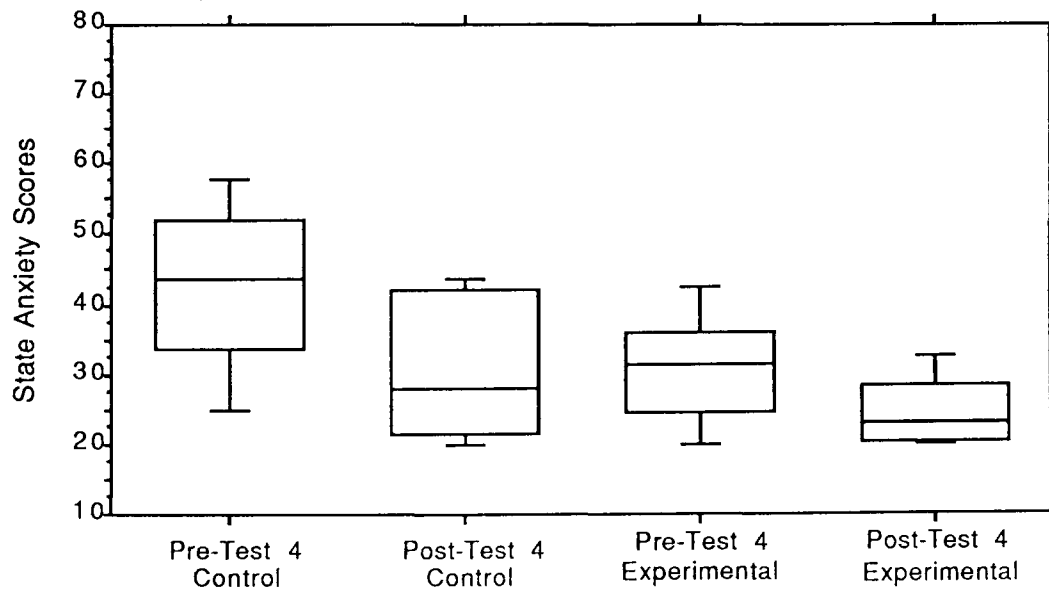


Figure 11. Comparison of Scores between Control and Experimental Groups for Session Four

Table 2  
t-test Results

Pre-Test	Control Means	Experimental Means	df	t	Level of Significance	t Table
1	48 (7.2 SD)	40 (2.4 SD)	28	2.8	0.05	1.70
2	43 (3.4 SD)	34.4 (6.2 SD)	30	.408	0.05	1.69
3	41.6 (5.2 SD)	33.9 (5.5 SD)	28	.220	0.05	1.70
4	45 (8.4 SD)	37.5 (11 SD)	30	.815	0.05	1.69

Post-Test	Control Means	Experimental Means	df	t	Level of Significance	t Table
1	32.8 (8.2 SD)	29 (2.2 SD)	25	-3.15	0.05	1.70
2	31.6 (7.1 SD)	29.4 (2.8 SD)	28	-4.62	0.05	1.70
3	31 (5.4 SD)	28.8 (5.1 SD)	21	-6.56	0.05	1.70
4	29.4 (6.4 SD)	24.7 (3.6 SD)	30	7.78	0.05	1.70

### Summary

At the beginning of the study the students in the experimental group showed a higher mean trait anxiety score than the control group. This difference is interpreted as being due to the sampling procedure. Interestingly, their state anxiety mean scores remained lower than the control group throughout the study. It can be assumed then, that the experimental group perceived the testing situation as less threatening throughout the course of the study.

The control mean trait score was lower than the experimental group mean trait score. Their subsequent state anxiety scores were higher than the control group throughout the study. Therefore it can be assumed that this group who would be expected to react with lower scores and perceive the test situations as less threatening, in actual fact approached the sessions with more anxiety than the experimental group. The experimental group did not perceive the testing sessions as negatively as the control group who had less of anxiety proneness as seen through the trait anxiety scores.

This data analysis (Table 2) illustrated that the control group of the study experienced more state anxiety at both the pre- and post-test sessions than the experimental group. The Control group had as a whole a lower mean trait anxiety than the Experimental group. The Experimental group had a mean trait anxiety score that was higher than the norm population. The literature describes a group with high trait anxiety more prone to react to threatening situations with objective and subjective state anxiety reactions. However, the Control group with the lower trait anxiety, scored higher on the state anxiety scale than the experimental group.

### **Step Two: Variables**

The categories of intervening variables proposed for this study were ability, age and course load.

#### **Ability**

Ability was defined as the generalization of a trait the learner possesses and is influenced by heredity and learning (Kerr, 1982) and would be assessed using the student's admission G.P.A. and semester-end G.P.A. This variable was not analyzed due to the following factors. The G.P.A. scores of students entering the programme were not based on identical criteria. That is for some students the admission G.P.A. consisted of their high school leaving score, for others it included university graduation score and a third group the G.P.A. accumulated from academic upgrading. Due to this inconsistency this variable could not be validly analyzed as to the influence it had on the pre- and post-anxiety scale score.

The aspect of pass fail was not analyzed due to the very low numbers who either felt they would fail or actually did fail during testing sessions.

There were three students from the control group and one from the experimental group who entered test session one worried regarding failure. One student failed this performance skill from the control group. All students from the experimental group entered sessions two and three with a positive outlook. Three students from the control group entered session three fearing failure and all passed. In session four two students from each group feared failure, each subsequently passed.

As discussed in step one, the scores of these four students did increase on the pre-state anxiety scale. These results are in conjunction with the literature, that if a person appraises a situation as threatening, he or she will respond to it with an elevation in state anxiety (Spielberger, 1977)

Due to the small numbers either entering or leaving the testing sessions fearing failure, this variable could not be analyzed adequately regarding its influence on student state anxiety.

### Age

The variable of age was another concept chosen for the study to be analyzed as a potential influence on state anxiety. This data was collected by having the students choose the appropriate age range as outlined on the demographic question sheet (Appendix 1).

Analysis of the data showed that fifty-six percent of the students fell within the age range of 17 to 24 years. Twenty-one percent of the student population was between 30 and 35 years of age. Fifteen percent was between the age range of 25 to 29 years and twelve percent within the 35 to 39 range. As fifty-six percent of this population was in the younger age group, the analysis of age being an influencing variable on state anxiety was not done.

### Course Load

The influence on state anxiety on the number of courses a student was taking during the semester was to be analyzed for this study. This information was collected by the students choosing the number that corresponded with their course load as outlined on the demographics question

sheet (Appendix 1). This area of the demographic information sheet was not completed by sixty percent throughout the study. The reason for this is not clear. One assumption is that the actual layout of the demographic information section was not well done. Due to this high attrition, this intervening variable was not analyzed.

### Summary

The effects by the influencing variables of age, course load, and ability on nursing students' state anxiety could not be analyzed. There was insufficient data due to students not fully completing the demographics sheet. It is also possible that the population size of this study being small led to the lack of sufficient data for analysis.

### Step Three: Students' Perspectives

The following section examines quotes students made during the study regarding their perceptions of the evaluation methods being used. The quotes are taken directly from the instructors' log books and from the tape-recorded interview sessions with selected members from each group.

Each instructor and the researcher was given a log book in an effort to keep a record of dialogues between instructors and students concerning the study. The following quotes are comments made by students to the nursing arts laboratory instructor.

On September 10, 1987, the third week into the study, a student from the experimental group commented:

"I feel really anxious when I have to do something according to steps...I would rather try to figure it out my own way based on what the principles are."

Another student at this time commented:

"I feel that they (critical elements) act as a summary and guide for the skills."

This student was then given a copy of the critical elements by the nursing arts laboratory instructor.

No remarks as to the fairness or difference between the two methods of evaluation were made to the researcher or noted in the instructors' log books.

### Tape-Recording Sessions

On November 17, 1987, and November 19, 1987, six weeks into the study, five students were interviewed from each group. These ten students were randomly chosen by using a table of random numbers. The students were interviewed by a research assistant who had no connection to the nursing faculty. The interview took place in an office with only the interviewer and the student present. Each student response was recorded.

The following questions were asked:

Introduction: I am speaking with Student # \_\_\_\_\_.

Question 1. What features of the evaluation method used for you in the nursing arts laboratory did you like?

Why?

Question 2. What features did you dislike?

Why?

Question 3. Did you discuss the two methods of evaluation with your classmates?

What did these discussions revolve around?

Did these discussions take place once a week?

twice a week?

less or more often?

Question 4. Would you like to add any comments?

This section of the report consists of direct student responses to the questions, and are analyzed according to whether they constitute a negative or positive remark.

Negative remarks are defined for this study as any statement made regarding the evaluation method using such words as disliked, confusing, didn't understand and terrible.

Positive remarks are defined as any statement made regarding the evaluation method using such words as like, positive experience and no trouble. Question one is worded in a manner to elicit positive remarks, while question two was worded to elicit negative remarks.

### Control Group Interviews

Three of the five students scheduled came for their interview. Concerning their views about the features of the critical elements evaluation method the following positive statements were made:

"it is a good tool. I knew the expectations to pass. Knew exactly what the teacher wants."

"I like it because there is no grade, just pass fail."



Only one negative comment was made with that student stating the critical elements "produced an unrelaxed atmosphere".

Two students reported no discussion between the two groups concerning comparison of the two methods. One student said about once a week interaction took place with members of the experimental group concerning review of the critical elements.

From these responses it can be seen that overall the control group student liked the critical elements method because they felt they knew the behaviours expected of them to pass in the lab testing.

#### Experimental Group Interviews

Three of the five scheduled interviews took place.

The first student felt the scale was "inappropriate for the first semester". She felt it would function best in "assessing students in the clinical setting". She further stated that discussions were made with the nursing arts laboratory instructor concerning the perceived weakness of the scale being the lack of applicability in the lab setting.

The second student liked the scale due to the type of personal feedback it gives. From this leveling she stated, "I could see how and where to improve". She had no discussion with anyone in the control group.

The third student said the scale "encouraged this group to do all the readings and not solely memorize the critical elements". She verbalized that she felt "I knew everything, versus just memorizing the critical elements to pass". Negatively the student noted that she would like to see students able to obtain a 4 or 5 level in the lab setting. She initially discussed the critical elements in week one with a classmate and then chose to go

solely with the scale. "I volunteered to do it that way and am glad I was in this group."

From these responses it is evident that two of the three students liked the scale mainly due to the type of feedback given specific to overall performance. Little intergroup comparison took place between these students in the experimental group and students in the control group.

### Nursing Arts Laboratory Instructor Interview

On November 19th, 1987 the nursing arts lab instructor was interviewed by the research assistance and the following are the questions used for this interview:

1. What features of the critical elements method did you like?  
Why?  
What features of the psychomotor taxonomy performance scale did you like?  
Why?
2. What features of both methods did you dislike?  
Why?
3. Did you discuss the two methods with the students?  
What did these discussions revolve around?
4. Would you like to add any comments?

Regarding the positive remarks made by the nursing arts laboratory instructor towards the critical elements method, the following was said:

1. "the critical elements speak to the skill and this is the type of feedback the students seem to like. They relate to the procedural steps behind the skill, i.e., is the blood pressure cuff on right?"
2. "easy to mark due to looking at the actual procedure and can easily relate this to the paper (sheet used with critical elements listed) during the actual lab testing."

The following are comments made regarding the dislikes toward the critical elements method:

1. "tends to be too narrow."
2. "a person might miss something focusing strictly on the critical elements, i.e., might miss another aspect of the skill performed and this is one of the dangers of using strictly the critical elements."

Comments made regarding the positive features of the psychomotor performance taxonomy scale included:

1. "it is broad. I like the idea, that a student, not necessarily in the lab, but in the clinical setting could see herself grow professionally."
2. "would be useful in clinical as student would sense accomplishment."
3. "this method incorporated principles behind the skills more."

Comments made regarding dislikes of the performance scale were:

1. "students look for feedback related to the actual skill. When I gave feedback related to the principles it was a more general type of feedback versus using the critical elements."
2. "I related critical elements too, due to long use."
3. "it is too broad."
4. "students want to know 'did I do the skill correctly?' and focusing on the principles does not give an answer to this question."
5. "a technical detail was raised: 'when testing four students at one time it is difficult to remember all the principles for each skill. Perhaps if these were added to the scale it would help the examiner.'"

### Analysis of Comments

From the preceding comments the following analysis was made. This instructor viewed the critical elements in a positive light. She believed the students wanted feedback related to procedural steps behind the skill and this method accomplishes that. The method also eased marking for the examiner. However, this method was also viewed by the instructor as narrow and this factor leads to the possibility of missing aspects of performance when evaluating students. These potential missing aspects of performance were not elaborated on, but this area was described as a "danger" of this type of evaluation.

The psychomotor performance taxonomy scale was perceived to be a "good idea". This method was regarded as more adequate for the clinical

setting than the nursing arts laboratory. Students could develop a sense of accomplishment by seeing their progression using this method in the clinical setting. The method was seen as incorporating the principles behind the skills well, but this technically led to difficulty for the examiner. She found with the psychomotor taxonomy scale she gave and wrote more general comments versus more specific comments when using the critical elements method.

This laboratory instructor viewed the nursing arts laboratory sessions in a different context from the clinical setting. The nursing arts laboratory sessions were viewed as strict skill acquisition in a step-by-step manner versus an evaluation of overall performance based on the principles behind the skill. The students would conceivably then be evaluated using one method in the nursing arts laboratory and another in the clinical setting. The implications of these results are discussed in Chapter V.

## **Step Four: The Process**

### **Introduction**

The following section provides an historical description of significant incidents that occurred during the implementation of the study. Neither the theoretical perspective nor the methodology of the research was selected to evaluate the relative effect of implementing such a study on faculty. The following section discusses such effects and their implications for this study. Quotes used are taken from the researcher's diary and the involved faculty members' log books. The ramifications of these issues will be discussed in Chapter V dealing with the implications of the study.

### The Faculty

The faculty involved in this study included the nursing arts laboratory instructor, two first year faculty who worked with the students during the practice sessions of their skill acquisition and the researcher. The researcher had worked for five years with the first year students and was familiar with the lab evaluation process past and present. She was not a member of the 201A course team. The nursing arts laboratory instructor had been working for five years in her position and had spent this time using the evaluation method of the critical elements with the students. The third instructor was the team leader for the course and worked with the experimental group in the practice sessions. This was her second year working with this level of students in the laboratory and she too was accustomed to using the critical elements. The fourth instructor was a part-time employee having her first experience working with first year students.

### Historical Review of Process

On August 19, 1987, a formal presentation of the study was made to the faculty of nursing at Medicine Hat College. Remarks were positive from faculty and included the following:

"I like the scale, it shows growth potential."

"We would be looking at the whole performance versus parts."

"At last change will be made based on research."

The first sign of potential difficulty with the study became apparent August 28, 1987. The researcher met with the nursing arts laboratory instructor to review the purpose of the study as this individual was not pre-

sent at the formal research presentation done with the nursing faculty as a whole. At that time questions arose from the laboratory instructor regarding the feasibility of using such an evaluation method especially when the lab instructor was so accustomed to using the critical elements method.

The researcher acknowledged this, and tried to decrease this worry by giving the following explanations. First, using the new method involves change and this is never easy. However, it is similar to what instructors do intuitively when assessing students in the hospital setting, where the critical elements are not the prime evaluation tool. Secondly, as a faculty we do not know the positive or negative effects of the critical elements method, and this study could be the start of reviewing that concept.

The researcher then supplied a copy of operational definitions specific to the scale and asked the nursing arts laboratory instructor to return with any further questions.

From September 8, 1987 to September 18, 1987 the researcher was not at the college but with second year students in the clinical setting. The researcher left word she would be willing to arrange meetings as necessary.

On September 21, 1987, a second meeting took place between the researcher and the nursing arts laboratory instructor at the latter's request.

The instructor had used the scale one week prior to this meeting and had identified in writing the following areas of difficulty with the research:

- 1) areas on the tool are unclear.
- 2) a pass is allowed when frequent verbal and occasional physical cues are given.

- 3) tool "appears even more subjective than previous tools", i.e., difference between frequent and occasional.
- 4) the lab instructor has been "testing basic skills for five years and has worked with the critical elements tool". She has developed a sense of how the average student performs and has become familiar with expectations in terms of "those criteria determining a pass or fail."
- 5) the lab instructor "brings the (past) knowledge to the new tool and finds that she is not necessarily using the tool as it stands but possibly interpreting it in light of previous experiences."

Due to these concerns, the nursing arts laboratory instructor wondered if she could continue using the scale with the experimental group. She asked the researcher what she wanted her to do. The researcher responded that she felt the purpose of the study had been lost. The scale was being scrutinized by this individual, and although not perfect in design its format was not what the research was designed to study. The question of the study was dealing whether state anxiety would be reduced due to different evaluation methods. At that meeting the question of revoking the research arose as a solution due to the discomfort felt by the laboratory instructor with the new method. The researcher chose to discuss these concerns the next day in a meeting consisting of all faculty working with first year students and the nursing department head.

The meeting helped to define a major area of concern among 201A faculty involving the scale. This concern dealt with the area of assistance and specifically the cuing aspect. Two members felt that the terms frequent, occasional, and continuous needed to be quantified. Cuing was seen as a new method used in the lab setting. First year faculty felt cuing was



not an acceptable instructor behaviour, especially the directive or assistive cues. Supportive cues were seen as acceptable. A decision was reached that both the experimental and control groups would receive supportive cues, however, no directive or assistive cues either verbally or physically would be given by the instructors. The study would continue as set out.

On September 28, 1987, the researcher was invited to a meeting of the 201A team. At that time a revised copy of the performance scale was handed to each one present. It consisted of the work of two members' view of how the scale should be arranged to ease its application (see page 59). The 201A instructors stated that the revised format better facilitated quantifying the number of cues used by using check (÷) marks in the comments area below assistance (see page ). The scale level of four and five were removed as instructors felt the students could not reach these levels in a one-time testing session. The researcher did not agree with introducing a scale change at that time, as the effect on student anxiety would be difficult to analyze. The laboratory instructor felt she would keep the rearranged scale for herself, as she felt it would better enable her to use

Table 3  
Revised Scale

Scale Performance	1. Imitation	2. Manipulation	3:1 (Laboratory) 3:2 (Clinical) - Precision
Standard Procedure	Lacking accuracy. Gross movements. Unsafe, unable to demonstrate skill, not based on principles	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Safe. Accurate most of time, work based on principles. At times explains procedure to patient.
Comments			
Quality of Performance	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Skillful in parts of the behaviour, not lacking principles. Delayed time period. Give rudimentary explanation to patient.
Comments			
Assistance	Continuous verbal and physical cues. No explanation.	Continuous verbal and physical cues all explained by instructor.	Frequent verbal and occasional physical cues. Instructor fills in gaps.
Comments			

that method while evaluating the students. The students were not shown and did not receive the revised scale format.

On October 1, 1987, a second year instructor came to ask if she could use the scale to evaluate her students in the nursing arts laboratory. The researcher agreed and asked for feedback from the instructor concerning its applicability. The following are direct quotes from her experience.

"It took me about 1.5 catheter redems to stop trying to integrate the tool with the critical elements outlined for the task. Once I did this there was NO confusion in my mind regarding the two entities. That is: I know the principles which must be the basis for the task evaluated, therefore, I stopped relying on the critical elements sheet and more on the performance scale criterion."

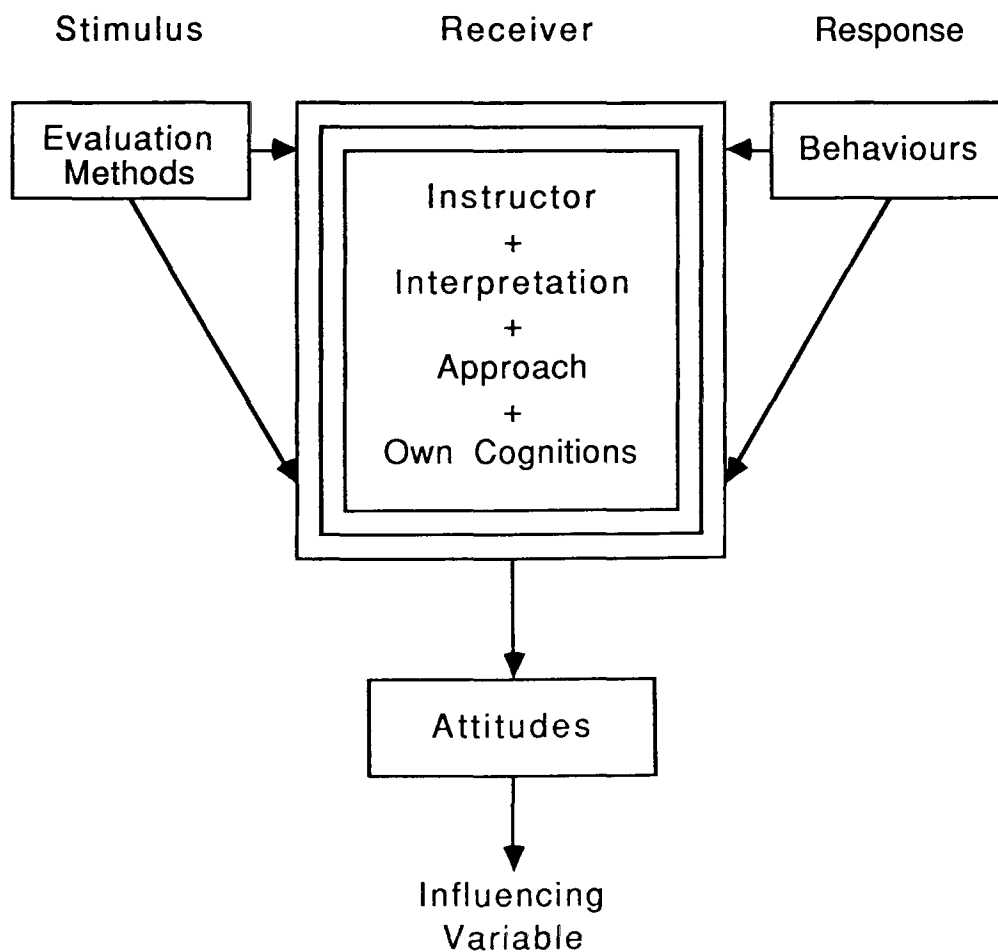
Of the seven students in this session one student failed. The instructor felt confident with this decision as it was based on "objective data" based on the student's average performance versus procedural steps. She further commented:

"This method of evaluating permits the instructor to question and guide the student's learning and understanding of the 'principles'. I believe this method would assist the student with their ability to problem solve."

During the remainder of October no meetings occurred. No comments were noted in two of the instructors' log books. The nursing arts laboratory instructor noted in her log book that since the meeting when the revised scale was discussed, she had less difficulty implementing the psychomotor performance scale method of evaluation.

### Discussion

From these incidents it became clear to the researcher the necessity to study the possible cause of the difficulty faculty had implementing the new evaluation method. The potential cause of difficulty was seen as the introduction of the new evaluation method. This gave rise to a feeling of uneasiness for the faculty working with the first year students. In an attempt to clarify the situation the researcher schematized the situation as follows:



The components of this framework are the researcher's conceptualization of the behaviour process seen during the study. The following discussion presents the operational definitions of this framework.

The first box represents the stimulus which in this case is the new method of evaluation. Box two represents the individuals involved in receiving or reacting to the stimulus. This area is greater in size and includes a number of boxes within the parameter of the boundary to illustrate a wholistic view of the receivers. Each person meets with the stimulus already possessing past experience, personal views and values. The box marked response refers to the behaviours elicited by the receivers due to the interaction of box one (stimulus) and box two (receivers). The interpretations, and behaviours are contingent on the influencing variable, attitude, toward the stimulus.

As early as 1935 Gordon Allport defined an attitude as, "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related". There is now widespread agreement among social psychologists that the term attitude should be used to refer to a general and enduring positive or negative feeling about some person, object, or issue arising as a product of experience and enters into the subsequent experience as a directive factor (Petty & Cacioppo, 1981).

This introspection showed that the complex relationship between attitudes and behaviours was not examined before beginning the study. this lack of investigation lead to an unpleasant state in the faculty due to a perceived abrupt introduction of the new method of evaluation.

The implications of these issues are discussed in Chapter V.

### **Summary of Analysis**

The data analyzed in step one indicated that the experimental students entering and leaving the testing situation experienced less state anxiety than the control group. This in essence answered the problem statement of the study that using the psychomotor taxonomy scale did decrease state anxiety.

Step two regarding the analysis of additional variables was not conducted due to the lack of variability in the measures perhaps due to the small size of the population. Step three indicated that students from both the control and experimental groups had both positive and negative perceptions regarding the method used in evaluating their performance. There appeared to be little intergroup comparison of the two methods used. Step four indicated that the introduction of a new method of evaluation caused some negative effects on faculty involved in the study. The implications of the results seen from step one, two three and four are presented in Chapter V.

# Chapter V

## Implications

### Introduction

This chapter discusses the implications of the data analysis of the study. The discussion involves an analysis of the implications arising as a result of the data produced from each phase.

### Implications Arising from Step One

The following discussion involves answering the original problem question proposed by this study: Does using a psychomotor taxonomy scale in evaluating nursing psychomotor skills decrease student state anxiety?

The experimental group had a higher mean score than the control group for trait anxiety. This meant the experimental group would be expected to score higher in state anxiety than the control group.

The students in the experimental group experienced less state anxiety before entering and leaving each testing session in comparison to the control group. These results therefore indicate that using the psychomotor taxonomy scale in evaluating nursing students in the experimental group who had higher anxiety proneness decreased their state anxiety.

Second, the literature in the area of anxiety and performance shows that test anxiety can impede performance (Kimball, Garnezy, and Zigler, 1980). With these results indicating that the experimental group experienced less state anxiety than the control group, the next area for investigation would be to examine this effect on their performance. Can students who learn their skills based solely on principles and evaluated using a per-

formance scale perform better in novel situations? Would such students adapt better to the clinical environment from the nursing arts laboratory environment?

Research in these areas are important for nursing education for two reasons. First, a positive learning environment is created for the nursing student and as a result the nursing students will possibly be more self-confident in the clinical area and therefore able to perform at a higher level.

Riley and Oermann (1985, p. 206) state:

"...psychomotor learning is an egocentric process and requires that the learner feel comfortable with him- or herself in the performance before the skill can be related on a more sophisticated level to the greater sphere of nursing practice."

The results of this phase of the study indicate that the psychomotor taxonomy scale created less state anxiety within the experimental group of students. Could this not be the beginning of students comfort with skill development and as Riley and Oermann (1985) state then the students could relate these skills to the clinical setting with a higher level of performance.

### **Implications Arising from Steps Two and Three**

Phase two of the analysis examined the students' and instructors' perceptions concerning the two methods of evaluation. One major area of concern was the applicability of a psychomotor taxonomy performance scale in the nursing arts laboratory evaluations. The laboratory sessions were viewed as significantly different from the clinical setting. If in fact the laboratory sessions are viewed in a different manner by instructors and students than the clinical setting then research into this concept could be



important for the following reasons. First, what are the effects on student performance when a different method of evaluation is used in the nursing arts laboratory from the method used evaluating students in the clinical setting? Is there growth potential for students during their sessions in the nursing arts laboratory?

This researcher believes further studies are needed in these areas. Instructors need to decide if there is a difference between the laboratory setting and clinical setting besides the obvious one of environmental change. Could students not progress during laboratory sessions? For example feedback could be given regarding the decrease of cues needed and the expenditure of energy each session. These aspects show student growth and student progress.

Is there a difference in performance in the clinical setting with students not memorizing the critical elements? That is, are students who learn and base their performance on the principles behind the skills, better able to problem solve in novel situations and therefore adapt easier to the clinical setting?

Research into these areas is important in order to better alleviate student stress and thus perhaps help improve their clinical performance.

#### **Implications Arising from Step Four**

A review of the literature was done to locate a reference on innovation and change to assist in the interpretation of step four.

It is a common observation that introducing innovative practices frequently leads to conflict with existing attitudes and values of both the researcher and practitioner (Glaser, Abelson & Garrison, 1983). When this

is so, it discourages adoption of the innovation. Glaser and Ross (1971) state that for an innovation to be acceptable, it must be assimilated within the professional ideology of the potential adopter.

Strong vested interests can contribute barriers to the introduction of change, and lead to a tendency to preserve the status quo in methods of operation whether for psychological, economical or ideological reasons (Glaser, Abelson & Garrison, 1983).

Glaser et al. (1983) identified factors that can be seen as determinants of how a group may respond to a proposed innovation. These factors, or elements, of the model have been defined using the following mnemonic:

- A:** Ability -- resources and capabilities of the organization (staff training, facilities, funds) necessary to implement, sustain, and evaluate the change.
- V:** Values -- the degree of accord between the values, cultural norms, and attitudes required by the proposed change and the organization staff's existing attitudes, values, philosophy, and operating style.
- I:** Idea/Information -- clear communication about the proposed innovation, including evidence for its validity and the techniques or actions needed for implementation.
- C:** Circumstances -- relevant factors operating in the organizational environment that may affect successful implementation, especially those active at start-up time.
- T:** Timing -- Readiness to consider the innovation; timeliness for it to be implemented.

- O:** Obligation -- perceived need for or desirability of at least trying out the innovation, felt by relevant decision makers, preferably with support from influential staff members; "championship" for adoption stemming from decision makers.
- R:** Resistance -- inhibiting factors; organizational or individual disinclination to make the change, for whatever reasons.
- Y:** Yield -- expected (preferably measurable) benefits or rewards from utilization of the innovation as perceived by potential adopters and by those who would be involved with implementation at the operating level.  
(Glaser, Abelson & Garrison, 1983, p.29)

The assessment of these eight factors was neglected in this study. This led to the difficulties outlined in phase four due to these unidentified issues. These areas should have been investigated closely before introducing the change of evaluation method.

In environments such as the one where this study took place it would be important to examine the eight factors as outlined by Glaser et al. (1983). It would also prove important to perhaps, develop ongoing research within such a population regarding how to assess the effects of change and which factors are most relevant within that population.

### **Conclusions**

The statistical analysis of the state anxiety data indicated that the nursing students within the experimental group experienced less state anxiety after each testing situation. From the experimental group interviewed the nursing students viewed the psychomotor taxonomy scale positively and

as one student stated felt they learned about the skills versus solely steps of the skill.

This study also uncovered some interesting concepts regarding instructor perceptions of skill evaluation. Overall there was a general feeling that the psychomotor performance taxonomy was not acceptable for use in the nursing arts laboratory. This concept needs further investigation as a result of this study.

The study indicated that student state anxiety can be decreased using the psychomotor taxonomy scale in evaluating student performance. With a reduction in students' anxiety level an increase in learning and retention of material can take place (Phillips, 1988).

Russo (1984) maintains that overly anxious students are unable to adapt to new learning strategies. These students also experience negative emotions about being evaluated. For example they experience a decreased self-esteem which can lead to a loss of concentration on the task to be completed (Morris and Engle, 1981). This results in a decreased level of performance and further compounds the loss of self-esteem.

Since there is a fear of clinical evaluation, and this fear provokes the anxious response, it becomes a key role for nurse educators to minimize this threat. The next step of this research is to investigate whether or not the nursing students' performance is at a higher level when using this method.

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Appendix 1  
A-State Form

Pre Test # 1

- Age                   (    ) 17 - 24  
                          (    ) 25 - 29  
                          (    ) 30 - 34  
                          (    ) 35 - 49
- Course Load       (    ) 5 courses  
                          (    ) 4 to 3 courses  
                          (    ) 2 to 1 courses

Please check (  ) in the appropriate box. For example:

Age                   (  ) 35 - 49

Pre-State Anxiety Question

How do you think you will do in the skill examination?

Pass                   (    )

Fail                    (    )

Post-State Anxiety Question

How did you do in the skill examination?

Pass                   (    )

Fail                    (    )

Thank you!

# SELF-EVALUATION QUESTIONNAIRE

Developed by Charles D. Spielberger  
in collaboration with  
R. L. Gorsuch, R. Lushene, P. R. Vagg, and G. A. Jacobs

STAI Form Y-1

Name \_\_\_\_\_ Date \_\_\_\_\_ S \_\_\_\_\_  
Age \_\_\_\_\_ Sex: M \_\_\_\_\_ F \_\_\_\_\_ T \_\_\_\_\_

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel *right now*, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

VERY MUCH SO  
MODERATELY SO  
SOMEWHAT  
NOT AT ALL

1. I feel calm ..... ① ② ③ ④
2. I feel secure ..... ① ② ③ ④
3. I am tense ..... ① ② ③ ④
4. I feel strained ..... ① ② ③ ④
5. I feel at ease ..... ① ② ③ ④
6. I feel upset ..... ① ② ③ ④
7. I am presently worrying over possible misfortunes ..... ① ② ③ ④
8. I feel satisfied ..... ① ② ③ ④
9. I feel frightened ..... ① ② ③ ④
10. I feel comfortable ..... ① ② ③ ④
11. I feel self-confident ..... ① ② ③ ④
12. I feel nervous ..... ① ② ③ ④
13. I am jittery ..... ① ② ③ ④
14. I feel indecisive ..... ① ② ③ ④
15. I am relaxed ..... ① ② ③ ④
16. I feel content ..... ① ② ③ ④
17. I am worried ..... ① ② ③ ④
18. I feel confused ..... ① ② ③ ④
19. I feel steady ..... ① ② ③ ④
20. I feel pleasant ..... ① ② ③ ④



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# SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-2

Name \_\_\_\_\_ Date \_\_\_\_\_

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

ALMOST NEVER  
SOMETIMES  
OFTEN  
ALMOST ALWAYS

- |  |   |   |   |   |
|--|---|---|---|---|
| 21. I feel pleasant .....  | ① | ② | ③ | ④ |
| 22. I feel nervous and restless .....  | ① | ② | ③ | ④ |
| 23. I feel satisfied with myself .....   | ① | ② | ③ | ④ |
| 24. I wish I could be as happy as others seem to be .....  | ① | ② | ③ | ④ |
| 25. I feel like a failure .....  | ① | ② | ③ | ④ |
| 26. I feel rested .....  | ① | ② | ③ | ④ |
| 27. I am "calm, cool, and collected" .....   | ① | ② | ③ | ④ |
| 28. I feel that difficulties are piling up so that I cannot overcome them .....                      | ① | ② | ③ | ④ |
| 29. I worry too much over something that really doesn't matter .....                                 | ① | ② | ③ | ④ |
| 30. I am happy .....   | ① | ② | ③ | ④ |
| 31. I have disturbing thoughts .....   | ① | ② | ③ | ④ |
| 32. I lack self-confidence .....   | ① | ② | ③ | ④ |
| 33. I feel secure .....  | ① | ② | ③ | ④ |
| 34. I make decisions easily .....  | ① | ② | ③ | ④ |
| 35. I feel inadequate .....  | ① | ② | ③ | ④ |
| 36. I am content .....   | ① | ② | ③ | ④ |
| 37. Some unimportant thought runs through my mind and bothers me .....                               | ① | ② | ③ | ④ |
| 38. I take disappointments so keenly that I can't put them out of my<br>mind .....                   | ① | ② | ③ | ④ |
| 39. I am a steady person .....   | ① | ② | ③ | ④ |
| 40. I get in a state of tension or turmoil as I think over my recent concerns<br>and interests ..... | ① | ② | ③ | ④ |

Appendix 2  
A-Trait Form

Trait Anxiety

Is there any reason why this measurement may be inaccurate at this time?

Is there anything happening in your life that could affect your anxiety level?

# SELF-EVALUATION QUESTIONNAIRE

Developed by Charles D. Spielberger  
in collaboration with  
R. L. Gorsuch, R. Lushene, P. R. Vagg, and G. A. Jacobs

## STAI Form Y-1

Name \_\_\_\_\_ Date \_\_\_\_\_ S \_\_\_\_\_  
Age \_\_\_\_\_ Sex: M \_\_\_\_\_ F \_\_\_\_\_ T \_\_\_\_\_

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel *right now*, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

VERY MUCH SO  
MODERATELY SO  
SOMEWHAT  
NOT AT ALL

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. I feel calm .....                                       | ① | ② | ③ | ④ |
| 2. I feel secure .....                                     | ① | ② | ③ | ④ |
| 3. I am tense .....  | ① | ② | ③ | ④ |
| 4. I feel strained .....                                   | ① | ② | ③ | ④ |
| 5. I feel at ease .....                                    | ① | ② | ③ | ④ |
| 6. I feel upset .....                                      | ① | ② | ③ | ④ |
| 7. I am presently worrying over possible misfortunes ..... | ① | ② | ③ | ④ |
| 8. I feel satisfied .....                                  | ① | ② | ③ | ④ |
| 9. I feel frightened .....                                 | ① | ② | ③ | ④ |
| 10. I feel comfortable .....                               | ① | ② | ③ | ④ |
| 11. I feel self-confident .....                            | ① | ② | ③ | ④ |
| 12. I feel nervous .....                                   | ① | ② | ③ | ④ |
| 13. I am jittery .....                                     | ① | ② | ③ | ④ |
| 14. I feel indecisive .....                                | ① | ② | ③ | ④ |
| 15. I am relaxed .....                                     | ① | ② | ③ | ④ |
| 16. I feel content .....                                   | ① | ② | ③ | ④ |
| 17. I am worried .....                                     | ① | ② | ③ | ④ |
| 18. I feel confused .....                                  | ① | ② | ③ | ④ |
| 19. I feel steady .....                                    | ① | ② | ③ | ④ |
| 20. I feel pleasant .....                                  | ① | ② | ③ | ④ |



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# SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-2

Name \_\_\_\_\_ Date \_\_\_\_\_

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

ALMOST NEVER  
SOMETIMES  
OFTEN  
ALMOST ALWAYS

- |  |   |   |   |   |
|--|---|---|---|---|
| 21. I feel pleasant .....  | ① | ② | ③ | ④ |
| 22. I feel nervous and restless .....  | ① | ② | ③ | ④ |
| 23. I feel satisfied with myself .....   | ① | ② | ③ | ④ |
| 24. I wish I could be as happy as others seem to be .....  | ① | ② | ③ | ④ |
| 25. I feel like a failure .....  | ① | ② | ③ | ④ |
| 26. I feel rested .....  | ① | ② | ③ | ④ |
| 27. I am "calm, cool, and collected" .....   | ① | ② | ③ | ④ |
| 28. I feel that difficulties are piling up so that I cannot overcome them                            | ① | ② | ③ | ④ |
| 29. I worry too much over something that really doesn't matter .....                                 | ① | ② | ③ | ④ |
| 30. I am happy .....   | ① | ② | ③ | ④ |
| 31. I have disturbing thoughts .....   | ① | ② | ③ | ④ |
| 32. I lack self-confidence .....   | ① | ② | ③ | ④ |
| 33. I feel secure .....  | ① | ② | ③ | ④ |
| 34. I make decisions easily .....  | ① | ② | ③ | ④ |
| 35. I feel inadequate .....  | ① | ② | ③ | ④ |
| 36. I am content .....   | ① | ② | ③ | ④ |
| 37. Some unimportant thought runs through my mind and bothers me                                     | ① | ② | ③ | ④ |
| 38. I take disappointments so keenly that I can't put them out of my<br>mind .....                   | ① | ② | ③ | ④ |
| 39. I am a steady person .....   | ① | ② | ③ | ④ |
| 40. I get in a state of tension or turmoil as I think over my recent concerns<br>and interests ..... | ① | ② | ③ | ④ |



Appendix 3  
Instructional Package

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING INSTRUCTIONAL PACKAGE

BASIC NURSING SKILLS

NURSING 201A

Critical Elements

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING SELF-LEARNING PACKAGE

BASIC NURSING SKILLS

NURSING 201A

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NURSING SELF-LEARNING PACKAGE - SCHEDULE 1987

WEEK OF

Sept. 14	Quiz	Medical Asepsis
	Seminar	Medical Asepsis
	* P & R	Medical Asepsis
Sept. 21	Quiz	Body Mechanics (a,b,c,d,e,f)
	Seminar	Body Mechanics (a,b,c,d,e,f)
	P & R	a,b,c (Basic Body Mechanics, Moving, Positioning, ROM)
Sept. 28	Quiz	None
	Seminar	Vitals
	P & R	d,e,f Body Mechanics (Transfers, Ambulation, Restraints)
Oct. 5	Quiz	Vitals
	Seminar	Hygiene & Bedmaking
	P & R	Vitals
Oct. 12	Quiz	None
	Seminar	Elimination, Perineal Care, Enema Administration
	P & R	Hygiene & Bedmaking, BP
Oct. 19	Quiz	Hygiene & Bedmaking
	Seminar	Feeding the Patient, Hot & Cold Applications
	P & R	Elimination, Perineal Care, Enema Administration, BP
Oct. 26	Quiz	Feeding the Patient, Hot & Cold Applications
	Seminar	Patient Assessment
	P & R	Hot & Cold Applications, BP, Bedpan Administration
Nov. 2	Quiz	Patient Assessment
	Seminar	None
	P & R	Patient Assessment

\* P = Practice Session  
R = Return Demonstration

## INTRODUCTION

This self-learning package is designed to allow the student to learn the basic nursing skills alone or with a group of classmates. For each lesson in this package, there will be a Seminar, a Quiz, scheduled lab practice time with your instructor, and a Return Demonstration, in which your ability to perform the skill will be examined. The student is expected to do all of the learning activities and write the Quiz prior to the Seminar. There will be a scheduled 2-3 hour lab practice for each lesson. This session will stress the application of principles relevant to the skill performed. Students must come prepared and have studied the theory and skill performance. In addition to this the student will be expected to practice as required to achieve proficiency in the nursing skill, prior to doing his/her Return Demonstration.

Some points to consider before commencing work on your Basic Nursing Skills:

1. Audiovisual materials that are to be used when working through each lesson will be listed in Appendix I at the end of this Instructional Package.
2. There is an additional bibliography at the end of this Instructional Package. These readings are elective.
3. Different learning resources often give slightly different information. For example: the video cassette on taking a patient's temperature suggests different lengths of time in which to leave a thermometer in, than does your textbooks. Make sure you refer to the CRITICAL ELEMENTS and the DESIRED SEQUENCE in this Instructional Package as these are the guidelines by which your Return Demonstrations will be evaluated.
4. The student must pass (65%) the quiz prior to Return Demonstration in the lab. The original mark will be the mark recorded.
5. The student will rewrite and pass the quiz prior to being tested. Schedule rewrite quiz to be arranged with instructor.

LESSON 1

MEDICAL ASEPSIS

Student Objectives

At the end of this lesson the student will

1. Discuss the principles and applications of medical asepsis.
2. Demonstrate handwashing technique that meets the Medicine Hat College Critical Elements (attached).
3. Demonstrate strict isolation technique that meets the Medicine Hat College Critical Elements.

Learning Activities

1. View the Audiovisual Material for this lesson - Tape 3.
2. Study pp. 861-888 (to Surgical Asepsis Assessment only) Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through
  - (i) pp. 989-993 in Clinical Nursing Skills & Techniques, Perry & Potter.
  - (ii) pp. 992-1003 (Isolation).
4. Write Quiz and attend Seminar.
5. Using the Medicine Hat College Critical Elements, ensure that your performance meets these. DESIRED SEQUENCE for Handwashing in video cassette (Handwashing - Basic Nursing Skills). DESIRED SEQUENCE for Strict Isolation technique on video cassette #3.
6. Arrange for a Return Demonstration for your Handwashing and Strict Isolation technique--be prepared to mask, gown, glove, double-bag, then degown, deglove, and demask, washing hands whenever necessary.

NOTE: You will not be tested on Reverse Isolation, or Surgical Asepsis in the Lab. Reverse Isolation will be discussed in the Seminar session.

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - HANDWASHING (Medical Asepsis)

CRITICAL ELEMENTS	COMMENTS
* 1. The fingernails must be filed and short, and free of debris at conclusion of procedure. No nail polish.	
* 2. An appropriate cleansing agent and warm running water are used.	
* 3. Hands are kept lower than the elbows at all times.	
* 4. All surfaces of hands and forearms are washed with brisk scrubbing motions.	
* 5. Lathering and rinsing should be carried out twice, lasting at least one minute each time.	

CRITICAL ELEMENTS	COMMENTS
* 6. Dry paper towel is used to turn off water faucet.	
* 7. Hands and forearms are dried carefully.	
* 8. Hands and forearms must not come into contact with any contaminated item after commencing (faucet, sink, nose, etc.)	

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MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - STRICT ISOLATION TECHNIQUE

CRITICAL ELEMENTS	COMMENTS
* 1. Mask, gown, and gloves are donned appropriately. Gown covers all of the uniform from neck to knees. Gloves overlap cuffs of gown.	
* 2. Gown is securely fastened with neckties and waistband: and neckties, inside of gown and nurse's uniform must be kept uncontaminated.	
3. Double-bagging is carried out according to principles of medical asepsis.	
* 4. Degowning and degloving is carried out so that the nurse's uniform is not contaminated. Hands are washed when appropriate.	
5. Demasking is carried out so the nurse's hair is not contaminated.	

CRITICAL ELEMENTS	COMMENTS
6. All supplies are disposed of in the proper receptacles.	
* 7. Hands are thoroughly washed before and after procedure.	

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LESSON 2

LIFTING, MOVING & POSITIONING THE PATIENT

This lesson has six parts and is the longest in this Instructional Package. Your instructor will be available to assist you in practicing the skills involved in this lesson. You will be required to do a Return Demonstration on positioning, ambulation, transfers, range of motion, and restraints. You will need to book an appointment in the Lab. **The Quiz is written before the Seminar and includes all areas.**

Lesson Parts:

First Week

- PART a            Basic Body Mechanics  
PART b            Moving & Positioning the Patient in Bed  
PART c            Range of Motion

Second Week

- PART d            Ambulation  
PART e            Transfers  
PART f            Applying Restraints

Student Objectives:

At the end of this lesson the student will

1. Discuss the reasons for the nurse to practice good body mechanics.
2. Demonstrate the use of good body mechanics while performing other nursing skills.
3. Discuss the rationale and principles that apply when lifting, moving, transferring and ambulating patients.
4. Discuss the rationale and principles related to Range of Motion Exercises.
5. Discuss the rationale and principles for the use of restraints.
6. Discuss the observations you make while lifting and moving patients and while doing range of motion exercises.
7. Demonstrate selected positions, lifts, transfers, and range of motion exercises according to the Medicine Hat College Critical Elements (attached).

PART A            BASIC BODY MECHANICS

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 2.
2. Study pp. 697-706, 720-721 (Lifting Techniques) from Potter & Perry, Fundamentals of Nursing Practice.
3. Read and work through pp. 869-877, Skills Text, Perry & Potter.
4. No Return Demonstration necessary as this will be evaluated during other procedures.

PART B            MOVING & POSITIONING PATIENTS IN BED

Learning Activities:

1. View the Audiovisual Material for this lesson - Tapes 2 & 5.
2. Study pp. 721-730, 731-737 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through Skills Text, Perry & Potter.  
( i ) pp. 879-884 (#12).  
(ii) pp. 889-901.
4. Using the Medicine Hat College Critical Elements for Lifting, Transferring, & Ambulating Patients & Positioning Patients ensure that your performance meets these.
5. DESIRED SEQUENCE for moving patient as in videocassette.
6. DESIRED SEQUENCE for positioning patients as in Perry & Potter.

PART C            RANGE OF MOTION EXERCISES

1. View the Audiovisual Material for this lesson - Tape 2.
2. Study pp. 738-746 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 955-968, Skills Text, Perry & Potter.
4. Using the Medicine Hat College Critical Elements for Range of Motion Exercises ensure that your performance meets these. DESIRED SEQUENCE as in the videocassette.

PART D            AMBULATION

1. Study pp. 746-755 from Potter & Perry. Fundamentals of Nursing Practice.
2. Read and work through Skills Text, Perry & Potter, pp. 974-981 (up to Crutch Walking).
3. Using the Medicine Hat College Critical Elements for Lifting, Transferring, & Ambulating Patients ensure that your performance meets these. DESIRED SEQUENCE as Perry & Potter.
4. Students will not be tested on Crutch Walking.

PART E            TRANSFERS

1. View the Audiovisual Material for this lesson - Tapes 2, 5 & 11.
2. Study pp. 736-737 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through Skills Text, Perry & Potter, pp. 884-889.
4. Using the Medicine Hat College Critical Elements for Lifting, Transferring, & Ambulating Patients ensure that your performance meets these. DESIRED SEQUENCE as in Perry & Potter and videocassette.
5. Hoyer lift video tape #11.

PART F            APPLYING RESTRAINTS

1. View the Audiovisual Material for this lesson - Tape 3.
2. Study pp. 921-923 & 723-725 from Potter & Perry. Fundamentals of Nursing Practice.
3. Study articles in L.R.C.  
Friedman, Freda Baron (Ed). "Restraints: When all else fails, there still are alternatives". R.N., January 1983. pp. 79.  
  
Maclean, Jill. "Restaining the Elderly Agitated Patient". C.N., June 1982. pp. 44-46.
4. Read and work through Skills Text, Perry & Potter,  
( i) pp. 75-76 (up to expected motor development)  
(ii) pp. 85-92 (restraints).
5. Using the Medicine Hat College Critical Elements for Restraints ensure that your performance meets these. DESIRED SEQUENCE as in Perry & Potter.

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - POSITIONING PATIENTS

CRITICAL ELEMENTS	COMMENTS
1. Determines appropriate position for patient based on needs and/or physician's orders.	
2. Prepare patient: * a. explanation.  * b. environment.	
*3. Assists or moves the patient into the desired position using principles of body mechanics.	
*4. Supports the necessary body parts with pillows, roles, etc., so the body posture reflects the best possible body alignment and patient comfort.	
5. Changes patient's position as often as necessary to maintain skin integrity over bony prominences.	

CRITICAL ELEMENTS	COMMENTS
6. Reports patient's response and significant observations.	

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MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - RANGE OF MOTION EXERCISES

CRITICAL ELEMENTS	COMMENTS
1. Determine type of range-of-motion exercises based on patient's capabilities: a. passive. b. active. c. active-assistive.	
2. Prepare patient: * a. explanation.  * b. environment.  * c. position of comfort.	
*3. Each joint is put through its full range of motion.	
*4. Exercises are best done in the same sequence each time and are carried out slowly and gently, never forcing a part of the body to move.	
*5. During passive movements, all joints must be adequately supported.	



CRITICAL ELEMENTS	COMMENTS
6. Encourage the patient to maintain a range of motion that permits and facilitates activities of daily living.	
7. Report patient's response and significant observations.	

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MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - LIFTING & TRANSFERRING

CRITICAL ELEMENTS	COMMENTS
*1. Determines the necessary move based on patient's needs.	
2. Prepares patient: * a. explanation.  * b. environment.  * c. position.	
*3. Assist or move the patient using the appropriate amount of help and body mechanics in order to avoid injury and discomfort to patient and self.	
*4. Position patient comfortably in correct body alignment.	
5. Report patient's response and significant observations.	

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - AMBULATION

CRITICAL ELEMENTS	COMMENTS
*1. Determines the necessary move based on patient's needs.	
*2. Prepares patient: a. explanation.  b. environment.  c. position.	
*3. Assist or move the patient using the appropriate amount of help and body mechanics in order to avoid injury and discomfort to patient and self.	
*4. Ambulates patient appropriately.	
5. Reports patient's response and significant observations.	

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - RESTRAINTS

CRITICAL ELEMENTS	COMMENTS
*1. Determines the appropriate restraint based on patient's needs and/or physician's orders.	
*2. Prepares patient: a. explanation.  b. environment.  c. position.	
*3. Applies the restraint securely and safely.	
*4. Checks restrained patient q.30-60-min.	
*5. Removes restraining q.2.h. and exercises the extremity.	

CRITICAL ELEMENTS	COMMENTS
6. Reports patient's response and significant observations.	

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LESSON 3      MEASUREMENT OF VITAL SIGNS

Student Objectives:

1. Discuss the facts and principles that apply when accurately measuring a patient's vital signs (i.e., Temperature, Pulse, Respiration, Blood Pressure, and Apical-Radial Pulse).
2. Demonstrate the ability to measure and record accurately a patient's vital signs, according to the Medicine Hat College Critical Elements.

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 3.
2. Study pp. 568 (Factors), 571-578, 580-582, 583-587, 605 (Exercises to increase familiarity with the stethoscope) from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 236-277 in Skills Text, Perry & Potter.
4. Write quiz and attend seminar.
5. Using the Medicine Hat College Critical Elements for Assessing Body Temperature, Pulse, and Respirations; Measuring Apical-Radial Pulse; and Blood Pressure Measurement, ensure that your performance meets these. Students will record the blood pressure using the 4th Korotkoff sound (muffled) and final Korotkoff sound (cessation). It is recommended to palpate the systolic B.P. to establish baseline data if:
  - a. the patient's B.P. has never been taken before i.e., admission.
  - b. initially after returning from the recovery room, and after specific diagnostic procedures etc.
  - c. previous information is not available i.e., chart missing for some reason.
  - d. there is a question about the previous B.P. recordings i.e., unclear, possibly incorrect, etc.otherwise, baseline data can be obtained through the patient's chart by looking at the previous readings.

To establish baseline data if points a, b, c, or d are apparent, you should: inflate cuff minimum of 30 mmHg ABOVE last palpation, i.e., if the last palpation of the pulse is felt at 110 mmHg, pump the cuff up to 140 mmHg, and then release to obtain readings.

6. Apical radial pulse is taken whenever there is reason to believe these pulses to be different. Some cardiac beats are too weak and irregular to

be transmitted to the peripheral radial artery and are therefore not felt. The difference between the number of beats heard apically and felt at radial artery pulse is called **pulse deficit**.

This skill will be shown during lab practice session.

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - ASSESSING T.P.R. (TEMPERATURE, PULSE & RESPIRATIONS)

CRITICAL ELEMENTS	COMMENTS
1. Prepare patient: * a. explanation.  b. environment.  c. position.	
* 2. Choose an appropriate site (oral, axilla, or rectal) and thermometer.	
* 3. Make sure reading on a mercury thermometer is below 35°C.	
* 4. Place thermometer appropriately.	
* 5. Select the pulse point (usually radial and place patient's arm across chest and lower abdomen).	



CRITICAL ELEMENTS	COMMENTS
<p>* 6. Place 3 middle fingertips over pulse point and count pulse for: a. 15 sec. &amp; multiply x 4 if pulse is regular b. 1 min. if pulse is irregular.</p>	
<p>* 7. Assess pulse rhythm, volume, and elasticity of the artery.</p>	
<p>* 8. Observe and feel chest movements and count rate for: a. 30 secs. if regular b. 1 min. if irregular</p>	
<p>* 9. Observe depth, rhythm and character of respirations (sound and effort).</p>	
<p>*10. Remove thermometer after: a. 8 mins. for oral temp. b. 10 mins. for axilla temp. c. 3 mins. for rectal temp.</p>	

CRITICAL ELEMENTS	COMMENTS
*11. Remove thermometer and wipe according to principles of medical asepsis.	
12. Wash hands before and after procedure.	
*13. Read thermometer accurately and clean and dispose of equipment appropriately.	
14. Record T.P.R. and report significant findings.	

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - BLOOD PRESSURE MEASUREMENT

CRITICAL ELEMENTS	COMMENTS
<p>1. Prepares patient: * a. explanation.  b. environment.  c. position.</p>	
<p>2. Utilizes a. appropriate cuff for size of patient's limb. * b. correct cuff position. * c. correct arm position.</p>	
<p>3. Manipulates control valve dexterously to permit rapid inflation and well regulated deflation of cuff.</p>	
<p>* 4. Obtains a palpable systolic reading utilizing radial or brachial pulse when establishing data.</p>	
<p>* 5. Obtains a reliable systolic/diastolic reading utilizing correct placement of stethoscope over brachial artery.</p>	

CRITICAL ELEMENTS	COMMENTS
6. Ensure patient's comfort and appropriate equipment placement at conclusion of procedure.	
7. Reports B.P. reading and relevant observations.	

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MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - MEASURING APICAL-RADIAL PULSE

CRITICAL ELEMENTS	COMMENTS
* 1. Two nurses required.	
* 2. Prepare patient: a. explanation.  b. environment.  c. position.	
* 3. One nurse places stethoscope over the apex of the heart and the other nurse selects the pulse point.	
* 4. One nurse gives a signal to initiate counting and each nurse counts for 1 minute.	
* 5. Note and report any pulse deficit.	

LESSON 4      HYGIENE

Student Objectives:

At the end of this lesson the student will

1. Discuss the rationale for providing each type of hygienic care.
2. Discuss the observation you make while doing hygienic care.
3. Discuss the principles and rationale related to the prevention and care of decubitus ulcers.
4. Demonstrate the technique used for a complete bedbath, backrub, and oral care, that meet Medicine Hat College Critical Elements (attached).

Learning Activities:

1. View the Audiovisual Material for this lesson - Tapes 1 and 2.
2. Study pp. 933-935, 941, 947, 949, 955-976 (to beds), 767-769 (decubitus ulcers) from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through
  - ( i) pp. 157-163,
  - ( ii) pp. 165-199,
  - (iii) pp. 121-134 and 142-145 (to infant)in Skills Text, Perry & Potter.
4. Write quiz and attend seminar.
5. Using the Medicine Hat College Critical Elements for Bedbath and Oral Hygiene ensure that your performance meets these. DESIRED SEQUENCE as in Perry & Potter.
6. Arrange a Return Demonstration of a complete bedbath, backrub, and oral care, with a fellow-student or friend as your patient. Be prepared to discuss principles, rationale, and observations for all sections of this lesson with your instructor.

NOTE: Bring your own towel, tooth brush, toothpaste and dental floss (if required), for Oral Hygiene Return Demonstration.

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - ORAL HYGIENE

CRITICAL ELEMENTS	COMMENTS
* 1. Correct handwashing is carried out before and after oral hygiene (if doing procedure separate from bedbath).	
2. Opportunity for oral hygiene will be offered a.m. and h.s. and more often as need is assessed by nurse or patient.	
* 3. Patient will be assisted to a safe and comfortable position.	
4. Debris is removed by use of appropriate mechanical cleansing agents (brush, gauze, floss; toothpaste, effervescent for dentures.	
* 5. Rinsing of debris is accomplished without aspiration, ingestion of mouthwash, or soiling of linens.	

CRITICAL ELEMENTS	COMMENTS
* 6. Lips are lubricated with petroleum jelly.	
* 7. Report patient's response and significant observations.	

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MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - BEDBATH

CRITICAL ELEMENTS	COMMENTS
*1. Correct handwashing is carried out before and after procedure.	
2. All essential equipment is assembled at outset and correctly disposed of at completion of procedure.	
3. Patient participation is encouraged whenever possible (eg., decision-making, washing self).	
*4. Warm water (40°C-55°C) used a suitable cleansing agent are used (for adults).	
*5. Bathing is carried out in a "from clean to dirty" sequence.	

CRITICAL ELEMENTS	COMMENTS
<p>* 6. All skin surfaces and especially skin folds are meticulously dried.</p>	
<p>* 7. Patient rest and comfort are maintained (eg., by body positioning, prevention of heat loss, support of limbs, minimal work time.</p>	
<p>8. Oral hygiene and grooming details (hair, nails, dress, etc.) are attended to.</p>	
<p>9. Reusable bedlinens are not soiled by the bed-bathing procedure. Top linens removed and bath blanket used.</p>	
<p>*10. Principles of body mechanics for the nurse are observed consistently.</p>	

CRITICAL ELEMENTS	COMMENTS
11. Report patient's response and significant observations.	

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LESSON 5      BEDMAKING

Student Objectives:

At the end of this lesson the student will

1. Discuss the rationale for properly made beds.
2. Demonstrate bedmaking according to Medicine Hat College Critical Elements (attached).

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 1.
2. Study pp. 933-935, 941, 947, 949, 955-976 (to beds), 767-769 (decubitus ulcers) from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 219-233 in Skills Text, Perry & Potter.
4. Write quiz and attend seminar.
5. Ensure that your performance meets the Medicine Hat College Critical Elements for making an unoccupied bed and an occupied bed. DESIRED SEQUENCE as in Perry & Potter.
6. Arrange a Return Demonstration with your instructor to make an occupied or unoccupied bed. Be prepared to discuss the rationale with her.

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - MAKING AN OCCUPIED & UNOCCUPIED BED

CRITICAL ELEMENTS	COMMENTS
* 1. All soiled linens are replaced with fresh linen.	
* 2. The bed is at a suitable working height to reduce back strain.	
* 3. Linens are manipulated in a way that minimizes air currents and cross contamination between a patient unit and its environment (eg., floor, adjacent patient unit, linen cart).	
4. Bedlinens are securely fastened, wrinkle free, and neatly aligned.	
5. The patient unit is tidied and restocked with essential supplies.	

CRITICAL ELEMENTS	COMMENTS
<p>* 6. If occupied:</p> <ul style="list-style-type: none"><li>a. patient safety and security must be ensured (by use of siderails, bath blanket to prevent exposure, etc.)</li><li>b. patient rest and comfort must be maintained (by providing for correct alignment, minimal work time, minimal position changes, etc.)</li></ul>	

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LESSON 6      ASSISTING WITH ELIMINATION & PERINEAL CARE

Student Objectives:

At the end of this lesson the student will

1. List the different types of equipment needed by the male and female patient who is not able to get out of bed.
2. Discuss the principles of good perineal care.
3. Discuss the principles of hygienic care of retention catheters.
4. Discuss the observation you make when assisting with elimination, doing catheter care, and doing peri care.
5. Demonstrate the use of equipment needed for elimination by patients confined to bed, according to Medicine Hat College Critical Elements (attached).
6. Discuss Principles of Condom Care

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 4.
2. Study pp. 949, 952, 1145 (Regular Bowel Habits), 1146 (Positioning), 1114 (Closed Drainage Systems), 1116-1119 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through
  - ( i) pp. 775-780 (up to Inserting...)
  - ( ii) pp. 788-791
  - (iii) pp. 805-807
  - I iv) pp. 135-142 (perineal care)
  - ( v) pp. 809-822in Skills Text, Perry & Potter.
4. Study the article "Reducing the Risk of Infection from Indwelling Urethral Catheters", by Ann Killion, Nursing'82, May.  
Emptying Catheter Bag
  - ( i) Remove spicket from protective sleeve on bag.
  - ( ii) Clean this spicket with an alcohol swab, using a rotating motion - do not touch end with hand.
  - (iii) Empty bag into measuring recepticle.
  - ( iv) Clean spicket with new alcohol swab and return to protectie sleeve clamped.
5. Write quiz and attend seminar.

6. Using the Medicine Hat College Critical Elements for Bedpan Administration, Perineal Care, and Care of Patient with a Retention Catheter, ensure that your performance meets these. DESIRED SEQUENCE for bedpan administration and perineal care as in Perry & Potter.
7. For care of patient with a retention catheter see Sequence for care of a patient with a urinary catheter: (as follows)
  - a. Wash and rinse the urinary meatus and catheter using a washcloth and soap and water (do not retract the catheter).
  - b. Wash and rinse the remaining areas of the perineum.
  - c. Do not apply betadine solution and/or neosporin ointment to the catheter routinely. This should be ordered if desired.
8. Arrange for a Return Demonstration of bedpan administration, male or female pericare, and care of a retention catheter with your instructor. Be prepared to discuss techniques, rationale, and your observations with her. Use washcloths (not cotton balls or chux) when performing peri-care.
9. Always pinch off, or clamp catheter when moving catheter bag from one side of the bed to the other. Remember to remove clamp before leaving the patient's side.
10. You will be expected to calculate the output on appropriate sheet, i.e., instructor will give you a simulated case study for this purpose.
11. Bedpan Administration will be tested in conjunction with Local Application of Hot & Cold testing.



MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - BEDPAN ADMINISTRATION

CRITICAL ELEMENTS	COMMENTS
* 1. Ensure the availability to bedridden patients.	
* 2. Prepare patient: a. explanation.  b. environment.	
* 3. Assist patient as required onto the bedpan utilizing proper body mechanics and protecting patient modesty.	
* 4. Position patient comfortably and elevate head of bed unless contraindicated.	
* 5. Place call bell, toilet tissue within reach and remove pan when patient signals (maximum 15 min.) without causing undue strain on patient.	

CRITICAL ELEMENTS	COMMENTS
* 6. Assist the cleansing of perineal-anal area as necessary utilizing principles of medical asepsis.	
* 7. Dispose of bedpan contents after collecting and assessing specimens as required.	
* 8. Wash hands before and after procedure (use discretion), and provide patient with opportunity to wash hands. Ensure patient safety.	
9. Report pertinent observations.	

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NURSING 201A - PERINEAL CARE

CRITICAL ELEMENTS	COMMENTS
* 1. Prepare the patient: a. explanation.  b. environment.  c. position.	
* 2. Wash hands before and after procedure.	
* 3. Collect and prepare required equipment and dispose of it appropriately.	
* 4. Wash the perineum using soap and warm water. a. female: separate and clean between labia minora and majora from front to back. b. male: begin with the penile head and move downward along the shaft retracting the foreskin of the uncircumcized male patient.	
* 5. Rinse and dry areas thoroughly replacing the foreskin over the head of the penis in the uncircumcized male patient.	

CRITICAL ELEMENTS	COMMENTS
* 6. If patient's rectal area also needs cleansing roll patient onto side and complete.	
7. Report patient's response and significant observations.	

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MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - CARE OF PATIENT WITH RETENTION CATHETER

CRITICAL ELEMENTS	COMMENTS
* 1. Prepare the patient: a. explanation.  b. environment.  c. position.	
2. Wash hands before and after procedure.	
3. Collect and prepare required equipment and dispose of it appropriately.	
* 4. Wash the urinary meatus and adjacent part of catheter with soap and water. Wash other areas of perineum according to principles of medical asepsis. This should be done 2X daily. Do not retract catheter.	
* 5. Catheter should be taped to female patient's thigh or male patient's abdomen or thigh.	

CRITICAL ELEMENTS	COMMENTS
* 6. Position catheter, tubing, and drainage bag to promote free flow of urine by gravity and attach tubing to bed.	
* 7. Drainage bag kept below level of patient's bladder and off the floor at all times and secured to bed frame.	
8. Check system periodically for obstructions and leaks.	
* 9. Empty the drainage bag each shift via drainage port using aseptic technique measuring amount, noting characteristics.	
10. Report significant observations.	

LESSON 7      ENEMA ADMINISTRATION

Student Objectives:

At the end of this lesson the student will

1. Discuss the types of enemas and general principles relating to the administration of all enemas.
2. Discuss the observations to be made when administering an enema.
3. Demonstrate the technique for administering a cleansing enema, according to Medicine Hat College Critical Elements.

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 4.
2. Study pp. 1148-1153 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 823 (cleansing enema) to 829 in Skills Text, Perry & Potter.
4. Write quiz and attend seminar.
5. Ensure that your performance meets Medicine Hat College Critical Elements for Enema Administration. DESIRED SEQUENCE as in Perry & Potter.
6. Arrange for a Return Demonstration with your instructor. Be prepared to discuss the principles relating to all enema administration and what observations you need to make.

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - ENEMA ADMINISTRATION

CRITICAL ELEMENTS	COMMENTS
1. Check physician's order.	
* 2. Prepare the patient: a. explanation.  b. environment.	
* 3. Wash hands before and after procedure.	
* 4. Collect and prepare required equipment and disposes of it appropriately.	
b. Assist patient to most appropriate position and exposes patient only as necessary.	



CRITICAL ELEMENTS	COMMENTS
* 6. Insert rectal tube slowly and smoothly the required length according to age (3-4" for an adult).	
* 7. Instill solution slowly and with safe pressure (maximum 18" above patient's hips) and slow or stop the flow for short periods if patient experiences discomfort.	
8. Remove tube when the solution is administered or when patient has strong desire to defecate.	
9. Advise patient to retain depending on type of enema.	
10. Assist patient as necessary onto bedpan, commode, or toilet.	

CRITICAL ELEMENTS	COMMENTS
11. Assist patient with hygiene.	
*12. Report type of enema and amount, color, and consistency of returns and patient response.	

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LESSON 8      FEEDING THE PATIENT

Student Objectives:

At the end of this lesson the student will

1. Discuss the observations you would make when feeding a patient.
2. Feed an adult, using a method that meets the Medicine Hat College Critical Elements (attached).
3. Measure and compute accurately fluid intake and output.

Learning Activities:

1. Study pp. 1074 (Factors Influencing Dietary Patterns), 1080 (Psychosocial Effects & Assisting), 1204-1205 (Fluids In & Out), 1222 (Measuring) from Potter & Perry. Fundamentals of Nursing Practice.
2. Read and work through
  - ( i) pp. 730-735 (to Bottle Feeding)
  - (ii) pp. 644-646in Skills Text, Perry & Potter.
3. Write quiz and attend seminar.
4. Using the Medicine Hat College Critical Elements ensure that your performance meets these. DESIRED SEQUENCE as in Perry & Potter.
5. Students must be familiar with the calculation of Intake and Output for each patient.

INTAKE AND OUTPUT RECORD

PATIENT'S NAME \_\_\_\_\_ DATE \_\_\_\_\_  
Time:  
0600-1400 hours ( )  
1400-2200 hours ( )  
2200-0600 hours ( )

Time	Intake	Output	ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.

Average servings in ml.'s (from kitchen)  
Brown & Gold Cup - 225 ml. Large Glass-200 ml.  
Soup Bowl - 120 ml. Jello - 90 ml.  
Small Glass - 120 ml. Ice Cream - 100 ml.  
Water Jug - (with one scoop of ice)  
- Approx. 800 ml.  
Please record all fluids, ie. oral, intra-  
venous, rectal, etc.  
#69 N.S.  
Revised 8/83

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - FEEDING AN ADULT PATIENT

CRITICAL ELEMENTS	COMMENTS
<p>1. Prepare patient:</p> <ul style="list-style-type: none"><li>a. explanation and identification.</li><li>b. environment--ensure patient's safety.</li><li>c. comfort and hygiene.<ul style="list-style-type: none"><li>-offer bedpan or urinal</li><li>-give patient opportunity to have face &amp; hands washed.</li><li>-provide dentures &amp; eyeglasses if worn.</li></ul></li><li>d. position.</li></ul>	
<p>2. Check patient receives right food tray.</p>	
<p>3. Encourage patient to participate as he is able.</p>	
<p>4. Remove tray, provide hygiene, and ensure safety.</p>	
<p>* 5. Note amounts of food and fluid taken and report if appropriate. Also record intake and output on worksheets when appropriate.</p>	

LESSON 9      LOCAL HOT & COLD APPLICATIONS

Student Objectives:

At the end of this lesson the student will

1. Discuss the facts and principles related to the safe localized application of heat and cold.
2. Discuss observations the nurse makes when applying heat and cold to a patient.
3. Demonstrate your ability to make applications of heat and cold safely.

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 6.
2. Study pp. 1401-1411 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 1100-1123 in Skills Text, Perry & Potter.
4. Write quiz and attend seminar.
5. Using the Medicine Hat College Critical Elements ensure that your performance meets these. DESIRED SEQUENCE as in Perry & Potter.
6. Arrange for a Return Demonstration with your instructor. Be prepared to discuss facts and principles related to the safe application of heat and cold and observations you have made. You will be asked to:
  - a. apply an ice bag.
  - b. apply a warm, moist compress.

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - LOCAL APPLICATION OF HOT & COLD

CRITICAL ELEMENTS	COMMENTS
1. Check physician's order.	
* 2. Prepare patient: a. explanation.  b. environment.	
3. Wash hands before and after procedure.	
* 4. Collect and prepare required equipment and dispose of it appropriately.	
* 5. Apply treatment to desired area for appropriate length of time.	

CRITICAL ELEMENTS	COMMENTS
* 6. Check site within 5-10 mins. after commencing treatment for any adverse reactions.	
7. Report patient's response and significant observations.	

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LESSON 10      PATIENT ASSESSMENT - HEAD TO TOE

Introduction

Careful observational and interviewing skills are essential components of nursing. Without the habit of observation, important information is likely to be overlooked and as a result, patient problems can be misidentified or missed (Wolff, Erickson, 1977). It is frequently necessary for nurses to make judgments, recognize the unusual, and set priorities based solely on their direct observational contact with patients. For this reason it is important that nursing students begin developing observational skills in their first semester of study. The process of observation begins with the first contact between patient and nurse, and continues throughout every activity the nurse does with the patient.

It is important to remember during the interview observations are made of the patient's non-verbal communication.

The purposes of this exercise are to help the student:

1. develop a systematic method of patient assessment using the head-to-toe sequence.
2. assess the patient based on human needs assessment.
3. demonstrate the ability to perform a beginning head-to-toe assessment based on human needs.

Learning Activities

1. Study pp. 84-90; pp. 138-159; p. 609 (psychological preparation); p. 610 (organization) From: Fundamentals of Nursing Practice. Potter & Perry.
2. View Tape 11 and collect data noting instructions on tape.
3. Read and work through from Skills Text, Perry & Potter,
  - ( i) pp. 45-72
  - ( ii) pp. 278-279 (include Table 13-1, p. 281)
  - (iii) pp. 284 (General Survey) to 289.
  - ( iv) pp. 290 (Assessing Skin) to 301 (Assessing Eyes)
  - ( v) pp. 316 (Assessing Mouth) to 319.
4. Write quiz and attend seminar.
5. Using the Medicine Hat College Critical Elements ensure that your performance meets these. DESIRED SEQUENCE as per included information on "Short Assessment - Head-to-Toe".
6. The Return Demonstration will be done in the Nursing Arts Lab.  
\*For this Return Demonstration each student must bring a volunteer (not a fellow nursing student). Each student will then perform a head-to-toe assessment interview with a classmate's volunteer.

"SHORT ASSESSMENT - HEAD TO TOE"

- purpose - to guide the overall approach to assessment and not to serve as checklist for patient assessment.

-Initial Impression

- observes initial impression of patient and his situation
- age, sex, general state
- anything which commands attention

-Head to Toe

1. Head

- greet patient and enquire about the patient's perception of his health and health care goals
- patient's responses provide information about alertness, mental abilities, knowledge, and emotional status
- vision and hearing
- mouth

2. Trunk

- take vital signs
- also use trunk as a starting point from which to extend observations to other sections of body e.g., assessment of respirations could start at the chest and then branch to extremities
- since patients are touched when taking vital signs, make skin assessment at this point
- then assess nutrition, elimination, and fluids

3. Extremities

- gather information re patient's motor and sensory function by examining the arms and legs and extending observations to head and trunk when useful

Surrounding Environment

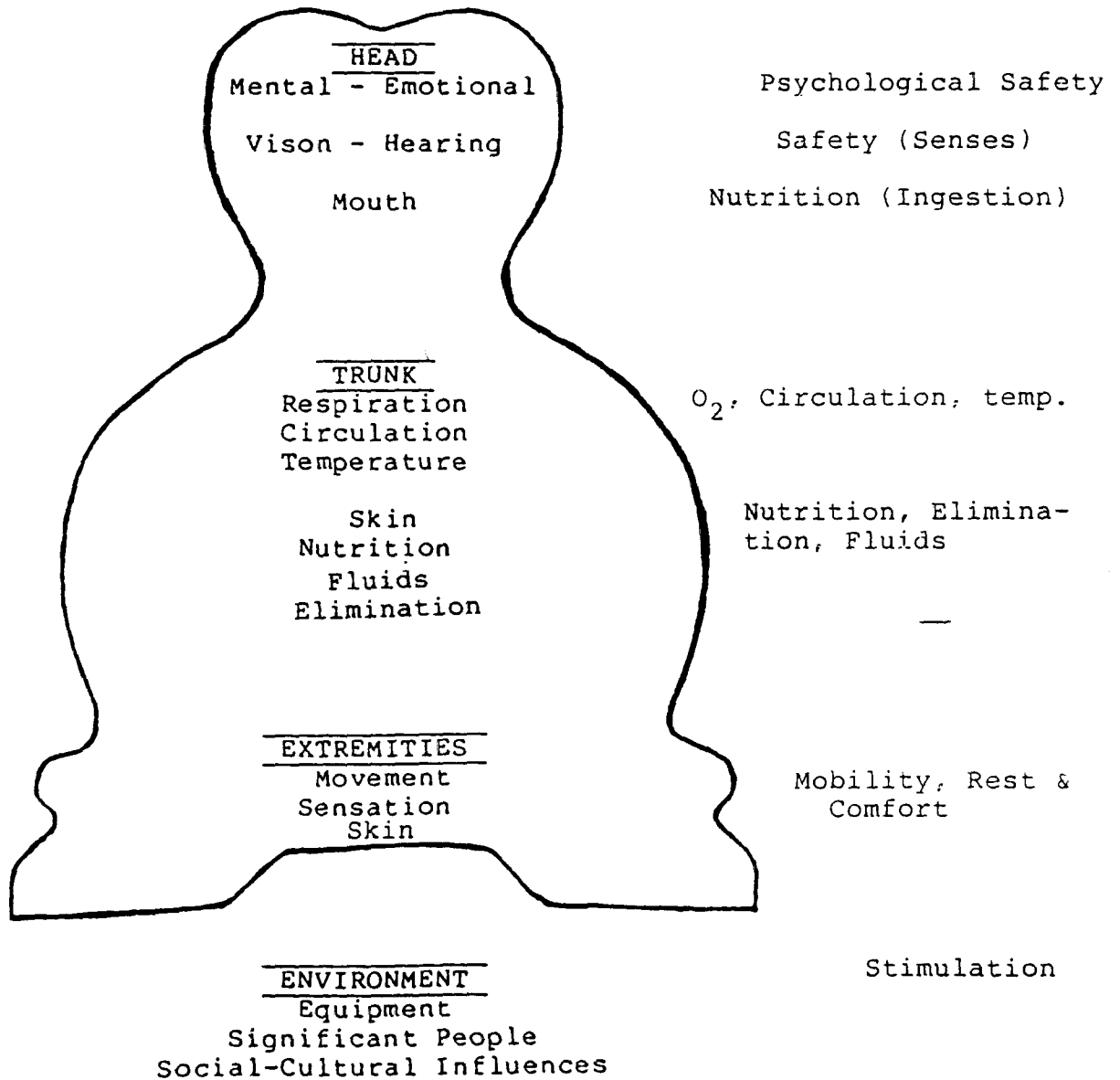
- note equipment, supplies, and objects in room; significant people present or described as meaningful in patient's file applies specifically to hospital environment; note particular influences of the social situation and culture applies in all environments.

SHORT ASSESSMENT - HEAD TO TOE

INITIAL IMPRESSION

AGE - SEX - GENERAL STATE  
ANYTHING COMMANDING ATTENTION

HUMAN NEEDS



Idea  
Adapted from: Wolff, Helen & Eriskson, Roberta. "The Assessment Man". Nursing Outlook. February 1977. pp. 103-107.

<p><b>MENTAL STATUS</b>          -level of consciousness          -ability to communicate          -level of understanding          -educational background</p>	<p><b>EMOTIONAL STATUS</b>          -patient's response to care          -behavioral manifestations of anxiety          -feelings regarding his/her status</p>	<p><b>VISION &amp; HEARING</b>          -visual &amp; auditory acuity          -glasses/contacts/hearing aids</p>
<p><b>MOUTH</b>          -lips, tongue, mucous membranes, gums, teeth and saliva (see Narrow &amp; Buschle p. 369)          -hygienic care of mouth</p>	<p><b>RESPIRATION</b>          -rate, rhythm, depth and character of breathing          -observe for signs &amp; symptoms of respiratory difficulty          -patient's need for O<sub>2</sub>          -use of tobacco          -coughing          -any medications          -any respiratory disease eg) cold, asthma, bronchitis</p>	<p><b>CIRCULATION</b>          -pulse &amp; BP          -color of skin          -any symptoms specific to heart problems          -medications taken for heart, blood pressure or other cardiovascular problems</p>
<p><b>TEMPERATURE</b>          -temp. reading          -warmth to touch of patient's head, trunk, and extremities</p>	<p><b>SKIN</b>          -turgor, hydration, color, lesions, wounds, rashes, scars, tattoos, needle injection scars          -any sensitivity of skin to soaps or lotions          -hygienic care of hair &amp; nails</p>	<p><b>NUTRITION</b>          -observe food eaten          -ask re food likes and dislikes          -any dietary modification          -history in regard to food intake          -patient's knowledge of proper nutrition</p>
<p><b>ELIMINATION</b>  <b>Bowels</b>          -habits &amp; type &amp; frequency of stools          -normal pattern of bowel movements &amp; characteristics of stools          -history of constipation or diarrhea          -any medications?  <b>Urinary</b>          -usual patterns of urination &amp; the appearance &amp; odor of the urine          -incontinence?          -urinary catheter?          -history of urinary problems          -any medications?</p>	<p><b>FLUIDS</b>          -amount of fluid intake          -amount of urinary output          -any signs &amp; symptoms of dehydration</p>	<p><b>MOVEMENT</b>          -usual exercise and diversional choices          -effects of exercise          -joint or muscle pain or disability          -posture and positioning          -level of activity ordered by the physician          -any disease of bones, joints, &amp; muscles          -sleep &amp; need for rest</p>
<p><b>SENSATION</b>          -sensitivity to touch          -any pain          -its nature &amp; location, duration, patient's perception of intensity, pathophysiology involved, the time pain has been present, any medications used</p>	<p><b>EQUIPMENT</b>          -equipment, supplies &amp; objects in the room</p>	<p><b>PEOPLE - SOCIAL - CULTURE</b>          -significant people          -influences of social situation &amp; culture          -occupation, socioeconomic factors, previous hospitalizations &amp; responses, family relationships &amp; problems, sexual difficulties</p>

MENTAL STATUS	EMOTIONAL STATUS	VISION & HEARING
MOUTH	RESPIRATION	CIRCULATION
TEMPERATURE	SKIN	NUTRITION
ELIMINATION	FLUIDS	MOVEMENT
SENSATION	EQUIPMENT	PEOPLE - SOCIAL - CULTURE

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING 201A - SHORT ASSESSMENT - HEAD TO TOE

CRITICAL ELEMENTS	COMMENTS
* 1. Prepare patient: a. explanation.  b. environment.  c. position.	
* 2. Uses human needs to perform a Head-to-Toe systematic patient assessment.	
3. Interviews the patient using effective communication skills.	
* 4. Uses observation skills in order to obtain data via the senses of sight, hearing and smell.	
* 5. Takes vital signs accurately.	

CRITICAL ELEMENTS	COMMENTS
6. Records data correctly.	

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## APPENDIX I

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LESSON 5

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LESSON 7

LESSON 8

LESSON 9

LESSON 10

Wolff, Helen & Erikson, Roberta. "The Assessment Man". Nursing Outlook.  
February 1977. pp. 103-107.

B. AUDIOVISUAL MATERIALS - OPTIONAL VIEWING

LESSON 1

LESSON 2

Lifting & Moving Patients	RT 62 L421
Positioning to prevent Contractures	RT 62 P63
Use of Protective Restraints	RM 698.5 R4 U72

LESSON 3

LESSON 4

Care & Prevention of Decubiti	RD 629 P72
Oral Care	RK 61 07

LESSON 5

LESSON 6

Peri Care: Basic Nursing Skills

RG 525 P41

LESSON 7

Cleansing Enema

RM 163 C42

LESSON 8

Feeding the Patient

RT 62F42

LESSON 9

Local Application of Heat & Cold

RM 865 L6

LESSON 10

Observing the Patient

RT 86 03

Appendix 4  
Instructional Package

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING INSTRUCTIONAL PACKAGE

BASIC NURSING SKILLS

NURSING 201A

Psychomotor Taxonomy Scale

MEDICINE HAT COLLEGE SCHOOL OF DIPLOMA NURSING

NURSING SELF-LEARNING PACKAGE

BASIC NURSING SKILLS

NURSING 201A

NURSING SELF-LEARNING PACKAGE - SCHEDULE 1987

WEEK OF

Sept. 14	Quiz	Medical Asepsis
	Seminar	Medical Asepsis
	* P & R	Medical Asepsis
Sept. 21	Quiz	Body Mechanics (a,b,c,d,e,f)
	Seminar	Body Mechanics (a,b,c,d,e,f)
	P & R	a,b,c (Basic Body Mechanics, Moving, Positioning, ROM)
Sept. 28	Quiz	None
	Seminar	Vitals
	P & R	d,e,f Body Mechanics (Transfers, Ambulation, Restraints)
Oct. 5	Quiz	Vitals
	Seminar	Hygiene & Bedmaking
	P & R	Vitals
Oct. 12	Quiz	None
	Seminar	Elimination, Perineal Care, Enema Administration
	P & R	Hygiene & Bedmaking, BP
Oct. 19	Quiz	Hygiene & Bedmaking
	Seminar	Feeding the Patient, Hot & Cold Applications
	P & R	Elimination, Perineal Care, Enema Administration, BP
Oct. 26	Quiz	Feeding the Patient, Hot & Cold Applications
	Seminar	Patient Assessment
	P & R	Hot & Cold Applications, BP, Bedpan Administration
Nov. 2	Quiz	Patient Assessment
	Seminar	None
	P & R	Patient Assessment

\* P = Practice Session

R = Return Demonstration

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Lesson 2	Body Mechanics, Moving & Positioning, Transfers, Ambulation, Range of Motion, Applying Restraints . . . .	5
Lesson 3	Vital Signs . . . . .	18
Lesson 4	Hygiene . . . . .	23
Lesson 5	Bedmaking . . . . .	27
Lesson 6	Elimination, Perineal Care & Catheter Care . . . . .	30
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## INTRODUCTION

This self-learning package is designed to allow the student to learn the basic nursing skills alone or with a group of classmates. For each lesson in this package, there will be a Seminar, a Quiz, scheduled lab practice time with your instructor, and a Return Demonstration, in which your ability to perform the skill will be examined. The student is expected to do all of the learning activities and write the Quiz prior to the Seminar. There will be a scheduled 2-3 hour lab practice for each lesson. This session will stress the application of principles relevant to the skill performed. Students must come prepared and have studied the theory and skill performance. In addition to this the student will be expected to practice as required to achieve proficiency in the nursing skill, prior to doing his/her Return Demonstration.

Some points to consider before commencing work on your Basic Nursing Skills:

1. Audiovisual materials that are to be used when working through each lesson will be listed in Appendix I at the end of this Instructional Package.
2. There is an additional bibliography at the end of this Instructional Package. These readings are elective.
3. Different learning resources often give slightly different information. For example: the video cassette on taking a patient's temperature suggests different lengths of time in which to leave a thermometer in, than does your textbooks. Ensure that your performance follows the Principles behind Skills & Performance Taxonomy and the DESIRED SEQUENCE in this Instructional Package as these are the guidelines by which your Return Demonstrations will be evaluated.
4. The student must pass (65%) the quiz prior to Return Demonstration in the lab. The original mark will be the mark recorded.
5. The student will rewrite and pass the quiz prior to being tested. Schedule rewrite quiz to be arranged with instructor.

LESSON 1

MEDICAL ASEPSIS

Student Objectives

At the end of this lesson the student will

1. Discuss the principles and applications of medical asepsis.
2. Demonstrate handwashing technique that meets the Principles of Medical Asepsis.
3. Demonstrate strict isolation technique that meets the Principles of Strict Isolation.

Learning Activities

1. View the Audiovisual Material for this lesson - Tape 3.
2. Study pp. 861-888 (to Surgical Asepsis Assessment only) Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through
  - a. pp. 989-993 in Clinical Nursing Skills & Techniques, Perry & Potter.
  - b. pp. 992-1003 (Isolation).
4. Write Quiz and attend Seminar.
5. Using the Principles of Medical Asepsis, ensure that your performance meets these. DESIRED SEQUENCE for Handwashing in video cassette (Handwashing - Basic Nursing Skills). DESIRED SEQUENCE for Strict Isolation technique on video cassette #3.
6. Arrange for a Return Demonstration for your Handwashing and Strict Isolation technique--be prepared to mask, gown, glove, double-bag, then degown, deglove, and demask, washing hands whenever necessary.

NOTE: You will not be tested on Reverse Isolation, or Surgical Asepsis in the Lab. Reverse Isolation will be discussed in the Seminar session.



## PRINCIPLES OF MEDICAL ASEPSIS

Medical asepsis refers to those practices and techniques which are designed to prevent or reduce the spread of microorganisms. Every individual harbors organisms which are potentially pathogenic. Any weakening of body defenses due to fatigue, illness, poor nutrition or injury can provide the opportunity for these normally inactive organisms to cause infection. Further, one person's organisms, while harmless to her/him, can cause illness in others whose resistance is temporarily lowered. Hospitalized patients, by virtue of their illness/injury, and the increased number of pathogens in the hospital setting, are particularly susceptible to infection both from their own and other people's pathogens. Therefore medical aseptic techniques are routinely followed by medical personnel in an attempt to lower this risk.

Medical aseptic techniques basically consist of an enlargement of those hygienic practices which most people in Western society are taught from childhood, combined with an acceptance of the responsibility for being the strictest judge of one's own technique, often referred to as developing a "medical aseptic conscience". Carelessness and irresponsibility are, unfortunately, very real factors in the spread of hospital acquired infections.

As living organisms pathogens, with few exceptions, cannot long survive away from the warmth, moisture and nutrients provided by their host. Therefore they are concentrated in the host, specifically in the secretions and excretions of the respiratory and gastrointestinal systems, and on the skin, particularly the hands, which are in such frequent contact with secretions and excretions.

Pathogens cannot move by themselves, therefore they are transferred from one host to another by being carried, either by direct contact, or indirectly on soiled equipment and supplies or via air currents. Prevention of spread emphasizes erecting barriers to these modes of transfer.

### PRINCIPLES OF HANDWASHING

The organisms normally present on a person's skin are termed resident. Those acquired from some other source are termed transient. Because transient organisms take many hours to attach themselves to a new host, prompt and thorough handwashing after patient contact provides one of the most effective means of preventing the spread of infection in the hospital setting.

Undamaged skin and mucous membrane provide the body's first line of defense against infection. Therefore, care in the maintenance of these natural barriers is a basic principle in handwashing, as well as in all other personnel and patient care procedures. As a general rule handwashing should be done prior to, and following each patient contact where significant care is given. For example, it makes little sense to wash hands after taking a blood pressure when the same cuff will be used to measure the blood pressure of the patient in the next bed. However, if you give a patient a bedbath it makes very good sense to wash hands immediately afterward. As a general guideline if you are not sure whether to wash, then you should do so.

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behavior, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.

LESSON 2

LIFTING, MOVING & POSITIONING THE PATIENT

This lesson has six parts and is the longest in this Instructional Package. Your instructor will be available to assist you in practicing the skills involved in this lesson. You will be required to do a Return Demonstration on positioning, ambulation, transfers, range of motion, and restraints. You will need to book an appointment in the Lab. **The Quiz is written before the Seminar and includes all areas.**

Lesson Parts:

First Week

- PART a            Basic Body Mechanics
- PART b            Moving & Positioning the Patient in Bed
- PART c            Range of Motion

Second Week

- PART d            Ambulation
- PART e            Transfers
- PART f            Applying Restraints

Student Objectives:

At the end of this lesson the student will

1. Discuss the reasons for the nurse to practice good body mechanics.
2. Demonstrate the use of good body mechanics while performing other nursing skills.
3. Discuss the rationale and principles that apply when lifting, moving, transferring and ambulating patients.
4. Discuss the rationale and principles related to Range of Motion Exercises.
5. Discuss the rationale and principles for the use of restraints.
6. Discuss the observations you make while lifting and moving patients and while doing range of motion exercises.
7. Demonstrate selected positions, lifts, transfers, and range of motion exercises.

PART A            BASIC BODY MECHANICS

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 2.
2. Study pp. 697-706, 720-721 (Lifting Techniques) from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 869-877, Skills Text, Perry & Potter.
4. No Return Demonstration necessary as this will be evaluated during other procedures.

PART B            MOVING & POSITIONING PATIENTS IN BED

Learning Activities:

1. View the Audiovisual Material for this lesson - Tapes 2 & 5.
2. Study pp. 721-730, 731-737 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through Skills Text, Perry & Potter.
  - a. pp. 879-884 (#12).
  - b. pp. 889-901.
4. Ensure that your performance follows the Principles behind Lifting, Positioning Patients.
5. DESIRED SEQUENCE for moving patient as in the videocassette.
6. DESIRED SEQUENCE for positioning patients as in Perry & Potter.

PART C            RANGE OF MOTION EXERCISES

1. View the Audiovisual Material for this lesson - Tape 2.
2. Study pp. 738-746 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 955-968, Skills Text, Perry & Potter.
4. Ensure that your performance follows the Principles behind the Range of Motion Exercises. DESIRED SEQUENCE as in the videocassette.

### PRINCIPLES & RULES OF BODY MECHANICS

Body mechanics is defined as the efficient use of the body in moving and lifting. Its goals are to conserve energy and prevent injury, most specifically to the vulnerable and weak lower back muscles, by encouraging the use of the body's largest and strongest muscles, of the legs and arms. The rules of body mechanics are based on the physical principles of balance as these relate specifically to the human body. Thus they provide scientifically based guidelines for moving and lifting techniques.

The balanced standing position is called the anatomical position, and variations of the anatomical are used in balanced sitting and lying positions. In addition to conserving energy, correct balance promotes good posture, improves appearance, and facilitates the best possible functioning of all body systems. However, while personal benefit from a knowledge of body mechanics is a major goal, an additional objective is the use of this knowledge in the assessment and supervision of the patient's balance and movement needs. Efficient use of the body is not instinctive, but rather must be learned. This usually necessitates the breaking of old habits of moving and lifting which are unsound, and frequently deeply entrenched. The physical principle which dominates balance is gravity, and the rules of body mechanics are designed primarily to compensate for this constant physical force.

### PRINCIPLES OF BALANCE

Balance is maintained as long as an object's line of gravity passes through its base of support.

The broader the base of support the more stable an object will be.

The lower the center of gravity the more stable an object will be.

### RULES OF BODY MECHANICS

Broaden your base of support to increase stability.

Work as close to your center of gravity as possible.

Bend from your hips and knees, never your back.

Hold objects to be lifted as close to your center of gravity as possible.

Flex hips and knees slightly in preparation for lifting and moving.

Always stand so as to face your work.

Stabilize your body against some stationary object in preparation for moving or lifting.

Tighten your abdominal and gluteal muscles in advance of lifting.

Use your body weight to assist in moving and lifting by shifting it in the direction of movement.

Roll, slide, pull, or push an object rather than lift it.

If you have an option, pull rather than push.

Use your arms as levers to assist in lifting.

Get help when you need it.

Use verbal cues to synchronize all moving and lifting.

### PRINCIPLES OF PROTECTIVE POSITIONING FOR THE BED PATIENT

The position most commonly used for the patient confined to bed and unable to move is the lateral or side-lying. This position promotes excellent respiratory function and drainage, and minimizes pressure over those bony prominences most susceptible to pressure areas; the sacrum, hips, heels and scapulae. Reduction of tissue pressure is essential, since the ischemia it causes has been known to result in the development of decubiti in as little as three hours in susceptible individuals. Frequent change of position is therefore as important in the prevention of decubiti as is correct positioning. Each time the patient's position is changed the skin, particularly over bony prominences, is inspected and massaged.

Immobilized patients are not routinely positioned on their backs because of the excessive pressure this places on the vulnerable sacral area, the strain on the lumbar spine, the danger of hip contractures, and for the unconscious patient, the danger of nasopharyngeal secretions being aspirated. For those patients who are obliged to maintain this position, which includes patients in casts or orthopedic traction, meticulous routine sacral inspection and massage are a must. An acrilan pad, or some other type of anti-pressure aid is frequently necessary if the back-lying position must be maintained for a significant period of time.



PRINCIPLES OF ASSISTING A PATIENT TO SIT UP IN BED

Moving from the flat to a sitting position causes a temporary blood pressure drop (postural hypotension) in many people. The patient who tolerates the change poorly may become pale, perspire heavily, experience dizziness or nausea, and have an increase in pulse rate. Fleeting forms of these signs and symptoms are not uncommon, but if they persist the patient must not be allowed to continue with the move. Postural hypotension is particularly likely to occur in patients who have been immobilized for a period of time. The head of the bed is raised slowly to allow the patient time to adjust to the sitting position, and to reduce his energy expenditure during the move. Raising the head of the bed eliminates strain on the suture lines of post operative abdominal and chest surgery patients, and is mandatory in these situations. The head is also raised for the patient to get back into bed, to avoid a too sudden, uncoordinated, or stressful return to the supine position.

Sitting with the legs over the side of the bed is frequently the first in a series of progressive exercises prescribed for the patient who has been confined to bed. However, prolonged sitting may be contraindicated for patients who have had abdominal or groin surgery, or who have circulatory problems involving the lower extremities, since this position places considerable strain on suture lines, and can constrict blood flow to the legs.

PRINCIPLES OF MOVING A PATIENT TOWARD THE HEAD OF THE BED

Moving patients upward in bed is a continuing task, because gravity pulls them constantly toward the foot when the head of the bed is elevated for comfort, or treatment.

Patients must be encouraged and given the time to do as much of their own repositioning as they can. For this reason, a patient is always supported on his weaker or more encumbered side, leaving his stronger arm and leg free to assist in the move.

Patients unable to assist with their repositioning should be moved using a turn sheet. This allows better control of their alignment and weight and reduces the possibility of brush burns from friction against the bottom sheets. Friction opposes movement, therefore repositioning using a sheet comprises a combined effort to lift the patient slightly as he is moved.

Patients who are unable to reposition themselves without assistance frequently have physical problems necessitating the presence of nasogastric tubes, urinary retention catheters, intravenous infusions, etc. All clamps or pins securing such tubings must be removed, and the tubings must be checked for tension and obstruction (kinking) and placed so that the patient does not lie on them. Pressure from lying on tubings would rapidly cause the development of pressure areas, as well as obstruct the drainage or infusion which necessitated their presence.

### PRINCIPLES OF TURNING A PATIENT ON HIS SIDE

The patient's bed is raised to hip (center of gravity) level in preparation for all repositioning. The head is lowered so that energy is not needlessly expended to lift against gravity. All positioning aids which would hamper movement, and all pillows except the head pillow are removed.

The patient's limbs are repositioned first to prevent their dragging and adding to the total weight to be lifted. The limbs are supported at their joints (knee, ankle, elbow, wrist) to stabilize them during repositioning. The patient's torso is turned as a single segment, to prevent twisting of his vertebrae and strain to his back muscles.

Repositioning is greatly facilitated by the use of a turn or lift sheet. This small sheet (a folded drawsheet), is positioned under the patient from his shoulder to mid-thigh, and thus supports his full torso weight. The lift sheet keeps the patient's body in better alignment during the turn. Two people are needed to lift a patient using a turn sheet, however, one person can use the sheet to turn a patient from side to side.

A patient must always be told in advance that he will be repositioned, regardless of his apparent consciousness level. Being moved when one has no control over one's body is a frightening experience, and a patient not forewarned is usually sufficiently startled to resist, thus adding to the difficulty of the move. Unless contraindicated by his medical condition, each patient must be given the encouragement and time to meet as many of his own movement and repositioning needs as he can.

Repositioning a patient in bed invariably displaces foundation linens. These must be retightened each time to eliminate wrinkles, which would predispose development of skin pressure areas.

### PRINCIPLES OF RANGE OF MOTION EXERCISES

Range of motion (ROM) exercises are specifically designed to prevent joint contractures, and to a lesser extent muscle atrophy and circulatory stasis in the patient whose motion or exercise capabilities are impaired. While ROM exercises are a routine part of care in long term illness they must nevertheless be approved by a physician, who may specify the number of repetitions and times per day that exercises are to be done. Five to ten repetitions two or three times a day is a common routine.

ROM exercises are termed active if the patient does them unaided; assistive if he requires some assistance; and passive if he is unable to help at all.

Each individual's joint range and mobility is different. Therefore, joints are exercised to the point of resistance or discomfort, but not forced beyond these natural limitations. Limbs are supported at or near their joints to maintain control of the limb during exercise. Care must be taken not to grasp muscles too tightly, since this could cause discomfort, and promote muscle spasticity. In the event spasticity does occur during exercises, it can best be overcome by the exertion of steady slow pressure on the joint.

PRINCIPLES OF AMBULATING A PATIENT

Early ambulation is one of the most important aids to rapid rehabilitation from illness, as well as the chief deterrent to the many physiological hazards which accompany immobilization. Ambulation is a progressive exercise, in which the patient walks a little further each day as his tolerance level increases. As the word implies, ambulation is an exercise the patient must be physically able to do by himself. Attempting to ambulate a patient who needs more than minimal assistance and supervision would be unsafe.

PART D            AMBULATION

1. Study pp. 746-755 from Potter & Perry. Fundamentals of Nursing Practice.
2. Read and work through Skills Text, Perry & Potter, pp. 974-981 (up to Crutch Walking).
3. Using the Principles behind Ambulating Patients ensure that your performance meets these. DESIRED SEQUENCE as in Perry & Potter.
4. Students will not be tested on Crutch Walking.

PART E            TRANSFERS

1. View the Audiovisual Material for this lesson - Tapes 2, 5 & 11.
2. Study pp. 736-737 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through Skills Text, Perry & Potter, pp. 884-889.
4. Using the Principles behind Transferring Patients ensure that your performance meets these. DESIRED SEQUENCE as in Perry & Potter and videocassette.
5. Hoyer lift video tape #11.

PART F            APPLYING RESTRAINTS

1. View the Audiovisual Material for this lesson - Tape 3.
2. Study pp. 921-923 & 723-725 from Potter & Perry. Fundamentals of Nursing Practice.
3. Study articles in L.R.C.  
Friedman, Freda Baron (Ed). "Restraints: When all else fails, there still are alternatives". R.N., January 1983. pp. 79.  
  
Maclean, Jill. "Restaining the Elderly Agitated Patient". C.N., June 1982. pp. 44-46.
4. Read and work through Skills Text, Perry & Potter,  
( i ) pp. 75-76 (up to expected motor development)  
(ii) pp. 85-92 (restraints).
5. Using the Principles behind Restraints ensure that your performance meets these. DESIRED SEQUENCE as in Perry & Potter.

### PRINCIPLES OF ASSISTING A PATIENT TO TRANSFER FROM BED TO CHAIR

A patient's ability to transfer must be carefully assessed with his physical safety in mind. Assessment should include the patient's muscle strength and fatigue level; his ability to hear, understand and follow verbal instructions; and any physical impairments he may have. Unless a patient is able to assist with his transfer it is unsafe to attempt it alone. Obtain the help of additional personnel, or use a mechanical lift if one is available.

There are two basic types of transfer: standing and sitting. In a standing transfer the patient first sits on the side of the bed, then stands, pivots or walks to a chair, and sits down. In a sitting transfer, the patient moves directly from a sitting position on the side of the bed to the sitting position in a chair, usually because of generalized weakness, or an inability to use his legs for support. The sitting transfer has the advantage of keeping the patient's center of gravity low, which helps improve his balance during the move. Both standing and sitting transfers may be assisted, or unassisted. As these words imply, in an assisted transfer the patient will require actual physical assistance to complete the move; in an unassisted transfer no physical assistance is required, although the patient may require supervision.

If a regular chair is being used in the transfer it should have arms, a firm seat, an upright back, and be of knee or thigh height. Low, soft chairs are extremely difficult to assist a patient into or out of, and should not be used. If a wheelchair is used the wheels are locked, and the foot rests folded up and out of the patient's way in preparation for the transfer.

The patient should wear slippers which offer good support, or socks and shoes for the transfer. These are put on while he is still in bed, to provide an immediate and solid base of support as he moves to the sitting position.

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behavior, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.



LESSON 3      MEASUREMENT OF VITAL SIGNS

Student Objectives:

1. Discuss the facts and principles that apply when accurately measuring a patient's vital signs (i.e., Temperature, Pulse, Respiration, Blood Pressure, and Apical-Radial Pulse).
2. Demonstrate the ability to measure and record accurately a patient's vital signs, according to the Principles behind Measurement of Vital Signs.

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 3.
2. Study pp. 568 (Factors), 571-578, 580-582, 583-587, 605 (Exercises to increase familiarity with the stethoscope) from Perry & Potter. Fundamentals of Nursing Practice.
3. Read and work through pp. 236-277 in Skills Text, Potter and Perry.
4. Write quiz and attend seminar.
5. Students will record the blood pressure using the 4th Korotkoff sound (muffled) and final Korotkoff sound (cessation). It is recommended to palpate the systolic B.P. to establish baseline data if:
  - a. the patient's B.P. has never been taken before i.e., admission.
  - b. initially after returning from the recovery room, and after specific diagnostic procedures etc.
  - c. previous information is not available i.e., chart missing for some reason.
  - d. there is a question about the previous B.P. recordings i.e., unclear, possibly incorrect, etc.

otherwise, baseline data can be obtained through the patient's chart by looking at the previous readings.

To establish baseline data if points a, b, c, or d are apparent, you should: inflate cuff minimum of 30 mmHg ABOVE last palpation, i.e., if the last palpation of the pulse is felt at 110 mmHg, pump the cuff up to 140 mmHg, and then release to obtain readings.

6. Apical radial pulse is taken whenever there is reason to believe these pulses to be different. Some cardiac beats are too weak and irregular to be transmitted to the peripheral radial artery and are therefore not felt. The difference between the number of beats heard apically and felt at radial artery pulse is called **pulse deficit**.

This skill will be shown during lab practice session.

### PRINCIPLES OF BLOOD PRESSURE MEASUREMENT

Blood pressure is a measure of two pressures against the arterial wall: the systolic (ventricular contraction), and the diastolic (ventricular relaxation). It is routinely measured on the brachial artery of the arm using a sphygmomanometer, which is most commonly called a blood pressure "cuff", or "manometer". The cuff is inflated to temporarily stop the arterial blood flow, and the sounds of returning circulation, called the Korotkoff sounds, are listened to with a stethoscope to determine the pressures. Korotkoff sounds start as a faint rhythmic tapping which increases in intensity, then suddenly muffles, and quickly becomes inaudible. The systolic pressure is that point at which the initial tapping sound is heard for two consecutive beats. The cessation of sound is considered the best index of diastolic pressure. The bell head of the stethoscope is recommended for blood pressure measurement, because it magnifies the low pitched sounds best. However, the diaphragm head may also be used.

Blood pressures are measured in mm of mercury. The average adult pressure ranges from 146 to 110 systolic, and 90 to 60 diastolic, men having somewhat higher pressures than women. The blood pressure, like the pulse and respirations, is easily altered by exercise and strong emotions. Therefore a resting pressure is measured to make long term comparisons valid.

### PRINCIPLES OF PULSE MEASUREMENT

Pulse rate is measured in number of beats per minute. This is obtained by counting for 15 seconds and multiplying by 4. Pulse rate can change quickly, and may vary by as much as 30 beats per minute under strong emotions or during exercise. For this reason it is routine to count a resting pulse rate, to ensure valid comparisons over a period of time. The resting rate of adults averages 60-90 beats per minute. Pulse irregularities detected during a 15 second count indicate the need for a full minute count. Because of its greater accuracy this is best obtained by measuring the apical rate.

In addition to rate, it is routine to assess pulse rhythm (regular or irregular) and strength (bounding, strong, weak, thready).

### PRINCIPLES OF TEMPERATURE MEASUREMENT

Because of its convenience the oral temperature is measured whenever possible. The average oral temperature for adults is 98.6°F(37°C), but variations of several degrees are normal for many individuals. Body temperature varies throughout the day, being highest between 4-7 P.M. and lowest from 2-6 A.M. for people who sleep at night. (These variations are reversed in day sleepers). Temperature also varies from one body site to another, the rectal being slightly higher, and the axillary lower than the oral.

Ongoing individual patient assessment is necessary to determine the need and the best site for temperature measurement. For example: since temperature elevation is accompanied by a flushed face, hot skin, and restlessness, the patient exhibiting these signs should have his temperature checked whether it is scheduled or not. Similarly, if the oral route is designated for a patient who, due to confusion, drowsiness, or difficulty in breathing, cannot keep his lips closed around the thermometer for the prescribed time, the care plan must be changed to indicate the need for the rectal site. Oral temperature is not significantly altered by smoking, eating, the presence of tubes, or oxygen therapy. However, it can be temporarily altered by drinking very hot or cold liquids, and measurement should be delayed for about 5 minutes in these situations to allow return to normal.

The commonly used glass thermometer has a mercury filled bulb. Body heat causes the mercury to expand up the calibrated shaft to indicate equivalent body temperature. Once the mercury has risen in the shaft it will retain this level until it is forcibly shaken down. Excessive heating of the bulb can cause an overexpansion of mercury sufficient to shatter the thermometer. For this reason thermometers cannot be washed in hot water.

Medical asepsis is a major principle of thermometer use, since the bulb must be clean for insertion, and is considered contaminated after use. For this reason thermometers are held only at the stem end, both before and after use.

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behavior, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.

LESSON 4      HYGIENE

Student Objectives:

At the end of this lesson the student will

1. Discuss the rationale for providing each type of hygienic care.
2. Discuss the observation you make while doing hygienic care.
3. Discuss the principles and rationale related to the prevention and care of decubitus ulcers.
4. Demonstrate the technique used for a complete bedbath, backrub, and oral care, that meet the Principles behind Hygiene.

Learning Activities:

1. View the Audiovisual Material for this lesson - Tapes 1 and 2.
2. Study pp. 933-935, 941, 947, 949, 955-976 (to beds), 767-769 (decubitus ulcers) from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through
  - ( i) pp. 157-163,
  - ( ii) pp. 165-199,
  - (iii) pp. 121-134 and 142-145 (to infant)in Skills Text, Perry and Potter.
4. Write quiz and attend seminar.
5. DESIRED SEQUENCE as in Perry & Potter.
6. Arrange a Return Demonstration of a complete bedbath, backrub, and oral care, with a fellow-student or friend as your patient. Be prepared to discuss principles, rationale, and observations for all sections of this lesson with your instructor.

NOTE: Bring your own towel, tooth brush, toothpaste and dental floss (if required), for Oral Hygiene Return Demonstration.

### PRINCIPLES OF HYGIENE - BED BATH

The skin's need for cleansing changes throughout the life cycle. Daily bathing is necessary from adolescence to middle age when the skin is at the height of its secretory and excretory function. However, with advancing age this function, as well as the skin's subcutaneous tissue layer, is diminished, causing the skin to become increasingly dry and fragile. Daily washing is therefore contraindicated, since soap further dries and irritates the skin, and brisk drying can bruise and injure it. Thus weekly or bi-weekly bathing is usually adequate for the older patient. However, the face, axillae, and genitorectal areas require daily cleansing in all age groups. Washing of these areas plus the back comprises the "partial" bed bath which suffices for many bedridden patients on a daily basis.

The principle of medical asepsis is met in bathing by proceeding from the cleaner to the least clean body areas. If an area is heavily soiled, as for example from wound drainage or fecal incontinence, disposable gloves should be worn during the cleansing to prevent pathogen transfer. An important aspect of the bed bath is assessment of the patient's physical and emotional status to determine additional health needs. Of particular importance is examination of the skin over bony prominences to detect signs of pressure, such as redness or other discoloration. The bed bath also provides time to talk to the patient, and get to know him as an individual. It provides an excellent opportunity to do health teaching.

Being unable to meet his own cleanliness needs can cause the patient great frustration and/or embarrassment. This can best be overcome by giving him the time, encouragement and assistance to do as much as he can by himself, then meeting the balance of his needs in an efficient, caring manner.

### PRINCIPLES OF HYGIENE - MOUTH, NAILS, HAIR, NOSE

For the patient unable to meet his own cleanliness needs procedures for care of the mouth, nails, hair and nares are a routine part of daily nursing care. Attention to these details provides the finishing touch that makes the patient not only feel but also look truly cared for.

Special mouth care is frequently necessary for very ill patients. Sordes, foul smelling and tasting film which develops due to reduced oral intake, thickened saliva and mouth breathing, is common in such patients. Sordes collects principally on the hard palate and tongue, but also on gums and teeth. The recommended method for removal is by swabbing with a solution of one part hydrogen peroxide to one part water. Commercially prepared lemon and glycerine swabs are also widely used, but not recommended for prolonged use since they can cause irritation and dryness of the oral mucosa. Unfortunately semi-conscious patients frequently resist mouth care, therefore patience and perseverance are essential in performing the procedure.

Finger and toe nails require regular cleansing, because dead skin tends to accumulate under the nails and retain moisture. This leads in time to tenderness, and even inflammation. Fingernails should be trimmed as often as the need is observed. However toenail cutting may require a doctor's order and/or a podiatrist's skill, since aging frequently causes impaired circulation and toenail thickening. Nail trimming is particularly important if the patient is confused or disoriented since nail scratching can result in extensive skin damage, thus predisposing the patient to infection and decubiti.

The patient's hair must be combed at least daily to prevent the scalp from becoming extremely tender. The fact that the hair retangles frequently during repositioning does not negate the benefit of combing in preventing scalp tenderness. However, hair trimming or cutting may not be done without the patient's or his family's prior knowledge and consent. No consent is necessary to shave a normally clean shaven male patient. Although shaving makes the patient look much better, it is most necessary because men who are clean shaven many times feel dirty unless beard stubble is removed.

Naris care is necessary for every patient unable to attend to the need himself. It is especially necessary if nasogastric tubes or oxygen catheters are present, since their constant irritation causes increased mucus secretion and nasal crusting.



Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behavior, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.

LESSON 5      BEDMAKING

Student Objectives:

At the end of this lesson the student will

1. Discuss the rationale for properly made beds.
2. Demonstrate bedmaking according to the Principles of Bedmaking.

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 1.
2. Study pp. 933-935, 941, 947, 949, 955-976 (to beds), 767-769 (decubitus ulcers) from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 219-233 in Skills Text, Perry & Potter.
4. Write quiz and attend seminar.
5. DESIRED SEQUENCE as in Perry & Potter.
6. Arrange a Return Demonstration with your instructor to make an occupied or unoccupied bed. Be prepared to discuss the rationale with her.

### PRINCIPLES OF BEDMAKING

Because patients spend above average, and in many cases all of their time in bed, keeping beds well made is essential to meet both comfort and safety needs. The safety factor in bedmaking relates directly to the prevention of pressure sores, which can be caused, in part, by lying on wet and/or wrinkled foundation linens (bottom sheets). Keeping linens smooth and dry is not an isolated once-a-day event, but rather a detail which must be attended to each time the patient is turned, repositioned, or otherwise given personal care.

Hospital bedding differs somewhat from that used at home. The mattress cover is plastic to protect it from soiling, and to make cleaning easier. In addition to the bottom sheet two small sheets, called draw sheets, are frequently positioned across the bed to cover the area between the patient's shoulders and knees. One draw sheet is made of a waterproof plastic, and the other, which covers it, of linen. Draw sheets allow this most vulnerable area of the bed to be changed when soiling occurs, rather than the full bottom sheet, which is a much more involved and time-consuming procedure. In some hospitals, use of the waterproof draw sheet has been discontinued in favor of using disposable waterproof incontinence pads.

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behavior, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.

LESSON 6      ASSISTING WITH ELIMINATION & PERINEAL CARE

Student Objectives:

At the end of this lesson the student will

1. List the different types of equipment needed by the male and female patient who is not able to get out of bed.
2. Discuss the principles of good perineal care.
3. Discuss the principles of hygienic care of retention catheters.
4. Discuss the observation you make when assisting with elimination, doing catheter care, and doing peri care.
5. Demonstrate the use of equipment needed for elimination by patients confined to bed, according to the Principles of Elimination.
6. Discuss Principles of Condom Care

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 4.
2. Study pp. 949, 952, 1145 (Regular Bowel Habits), 1146 (Positioning), 1114 (Closed Drainage Systems), 1116-1119 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through
  - ( i ) pp. 775-780 (up to Inserting...)
  - ( ii ) pp. 788-791
  - (iii) pp. 805-807
  - I iv) pp. 135-142 (perineal care)
  - ( v ) pp. 809-822in Skills Text, Perry & Potter.
4. Study the article "Reducing the Risk of Infection from Indwelling Urethral Catheters", by Ann Killion, Nursing'82, May.  
Emptying Catheter Bag
  - ( i ) Remove spicket from protective sleeve on bag.
  - ( ii ) Clean this spicket with an alcohol swab, using a rotating motion - do not touch end with hand.
  - (iii) Empty bag into measuring recepticle.
  - ( iv ) Clean spicket with new alcohol swab and return to protectie sleeve clamped.
5. Write quiz and attend seminar.

6. DESIRED SEQUENCE for bedpan administration and perineal care as in Perry & Potter.
7. For care of patient with a retention catheter see Sequence for care of a patient with a urinary catheter: (as follows)
  - a. Wash and rinse the urinary meatus and catheter using a washcloth and soap and water (do not retract the catheter).
  - b. Wash and rinse the remaining areas of the perineum.
  - c. Do not apply betadine solution and/or neosporin ointment to the catheter routinely. This should be ordered if desired.
8. Arrange for a Return Demonstration of bedpan administration, male or female pericare, and care of a retention catheter with your instructor. Be prepared to discuss techniques, rationale, and your observations with her. Use washcloths (not cotton balls or chux) when performing peri-care.
9. Always pinch off, or clamp catheter when moving catheter bag from one side of the bed to the other. Remember to remove clamp before leaving the patient's side.
10. You will be expected to calculate the output on appropriate sheet, i.e., instructor will give you a simulated case study for this purpose.
11. Bedpan Administration will be tested in conjunction with Local Application of Hot & Cold testing.

### PRINCIPLES OF ELIMINATION

Privacy is the cultural norm when meeting elimination needs, however this is difficult and sometimes impossible to obtain in the hospital setting. This causes the patient considerable embarrassment, which can, and frequently does contribute to elimination problems. Therefore, providing privacy is a priority in helping a patient meet elimination needs. Screening his bed, and asking visitors and ambulatory roommates to leave temporarily are concrete ways this can be done. If the patient's condition allows, personnel should also leave to provide privacy. However, since elimination is not a prolonged event a prompt return to prevent patient discomfort and fatigue is essential.

The normal position for elimination is sitting. Therefore, to the extent that the patient can tolerate it, his bed should be adjusted to the sitting position. The bedside commode automatically provides the sitting position, and is an excellent alternative for patients strong enough to get out of bed, but unable to ambulate to the bathroom.

For reasons of medical asepsis a bedpan is provided for each patient's exclusive use during his hospitalization. It is stored either on the bottom shelf of his bedside stand, or on a shelf or rack in the nearest bathroom. If bathroom storage is used storage racks should be clearly labeled with the patient's room and bed number to prevent equipment mixups.

Bedpans are uncomfortable to sit on, particularly if the patient is very heavy or very thin. To add a degree of comfort the bedpan seat may be padded with a towel for the thin patient, or lightly powdered to facilitate insertion and removal for the heavy patient. However, these techniques can be used for any patient who finds bedpan use particularly uncomfortable. A slipper or fracture pan which has a very low seat is available for patients who have movement restrictions, such as patients in body casts. Its disadvantage is that the shallow seat makes spilling of contents possible if care is not taken.

Bedpan and urinal contents are routinely inspected before disposal. Anything unusual dictates the need to determine if a specimen should be saved. If the patient is on measured intake and output voidings must be measured before disposal, and immediately charted.

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behavior, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.



LESSON 7      ENEMA ADMINISTRATION

Student Objectives:

At the end of this lesson the student will

1. Discuss the types of enemas and general principles relating to the administration of all enemas.
2. Discuss the observations to be made when administering an enema.
3. Demonstrate the technique for administering a cleansing enema using Principles for Enema Administration.

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 4.
2. Study pp. 1148-1153 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 823 (cleansing enema) to 829 in Skills Text, Perry & Potter.
4. Write quiz and attend seminar.
5. DESIRED SEQUENCE as in Perry & Potter.
6. Arrange for a Return Demonstration with your instructor. Be prepared to discuss the principles relating to all enema administration and what observations you need to make.

### PRINCIPLES OF ENEMA ADMINISTRATION

Reduced physical activity causes decreased peristalsis, and results in a slower passage of stool through the colon. Since one of the chief functions of the colon is water reabsorption, this causes the stools to be drier, and can lead to varying degrees of constipation. This is particularly true for the patient whose activity is restricted. Therefore frequency of stools is carefully checked, and bowel elimination procedures are frequently required.

Measures designed to promote bowel elimination all act in some way to stimulate peristalsis. suppositories have a chemical action in that they stimulate nerve endings in the colon. The disposable hypertonic solution enemas (e.g., Fleets) also have a chemical action; but in addition, by virtue of osmosis, they draw fluid into the rectum and increase bulk. The large volume tap water enema (TWE) and soap suds enema (SSE) also stimulate peristalsis by distending the colon. Soap, in addition, has a strong irritant action. This necessitates its careful measurement, which should not exceed 30 ml soap per 1000 ml of water. Normal saline (NS) solutions are also commonly used, especially for patients with electrolyte imbalances. Either a commercially prepared isotonic saline, or a 1 tsp to 500 ml of water solution may be used. Large volume enemas are sometimes preceded by administration of an oil retention enema. This small volume (120 ml) solution is retained for at least one hour, in an effort to presoften dry or impacted stools.

The bowel has no pain receptors, therefore the temperature of the enema solutions should never be hot, since the patient could be burned without his being aware of it. Too rapid administration of a large volume enema can cause an overstimulation of peristalsis and severe cramping. Flow rate must therefore be moderate. This is chiefly controlled by adjusting the height of the enema can. A guideline of 18 inches (45 cm) above the anus is standard, although this may be varied slightly higher or lower to regulate the flow rate. In the event of cramping the flow rate must be reduced or temporarily stopped, and the patient instructed to breath through his mouth as a distractor until cramping subsides.

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behavior, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.

LESSON 8      FEEDING THE PATIENT

Student Objectives:

At the end of this lesson the student will

1. Discuss the observations you would make when feeding a patient.
2. Demonstrate feeding an adult patient using Principles of Feeding an Adult Patient.
3. Measure and compute accurately fluid intake and output.

Learning Activities:

1. Study pp. 1074 (Factors Influencing Dietary Patterns), 1080 (Psychosocial Effects & Assisting), 1204-1205 (Fluids In & Out), 1222 (Measuring) from Potter & Perry. Fundamentals of Nursing Practice.
2. Read and work through
  - ( i) pp. 730-735 (to Bottle Feeding)
  - (ii) pp. 644-646in Skills Text, Perry & Potter.
3. Write quiz and attend seminar.
4. DESIRED SEQUENCE as in Perry & Potter.
5. Students must be familiar with the calculation of Intake and Output for each patient.

INTAKE AND OUTPUT RECORD

PATIENT'S NAME \_\_\_\_\_ DATE \_\_\_\_\_  
Time: \_\_\_\_\_  
0600-1400 hours ( )  
1400-2200 hours ( )  
2200-0600 hours ( )

Time	Intake	Output	ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.
			ml.

Average servings in ml.'s (from kitchen)  
Brown & Gold Cup - 225 ml. Large Glass-200 ml.  
Soup Bowl - 120 ml. Jello - 90 ml.  
Small Glass - 120 ml. Ice Cream - 100 ml.  
Water Jug - (with one scoop of ice)  
- Approx. 800 ml.  
Please record all fluids, ie. oral, intra-  
venous, rectal, etc.  
#69 N.S.  
Revised 8/83

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
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4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.

LESSON 9      LOCAL HOT & COLD APPLICATIONS

Student Objectives:

At the end of this lesson the student will

1. Discuss the facts and principles related to the safe localized application of heat and cold.
2. Discuss observations the nurse makes when applying heat and cold to a patient.
3. Demonstrate your ability to make applications of heat and cold safely.

Learning Activities:

1. View the Audiovisual Material for this lesson - Tape 6.
2. Study pp. 1401-1411 from Potter & Perry. Fundamentals of Nursing Practice.
3. Read and work through pp. 1100-1123 in Skills Text, Perry & Potter.
4. Write quiz and attend seminar.
5. DESIRED SEQUENCE as in Perry & Potter.
6. Arrange for a Return Demonstration with your instructor. Be prepared to discuss facts and principles related to the safe application of heat and cold and observations you have made. You will be asked to:
  - a. apply an ice bag.
  - b. apply a warm, moist compress.

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behavior, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.



LESSON 10      PATIENT ASSESSMENT - HEAD TO TOE

Introduction

Careful observational and interviewing skills are essential components of nursing. Without the habit of observation, important information is likely to be overlooked and as a result, patient problems can be misidentified or missed (Wolff, Erickson, 1977). It is frequently necessary for nurses to make judgments, recognize the unusual, and set priorities based solely on their direct observational contact with patients. For this reason it is important that nursing students begin developing observational skills in their first semester of study. The process of observation begins with the first contact between patient and nurse, and continues throughout every activity the nurse does with the patient.

It is important to remember during the interview observations are made of the patient's non-verbal communication.

The purposes of this exercise are to help the student:

1. develop a systematic method of patient assessment using the head-to-toe sequence.
2. assess the patient based on human needs assessment.
3. demonstrate the ability to perform a beginning head-to-toe assessment based on human needs.

Learning Activities

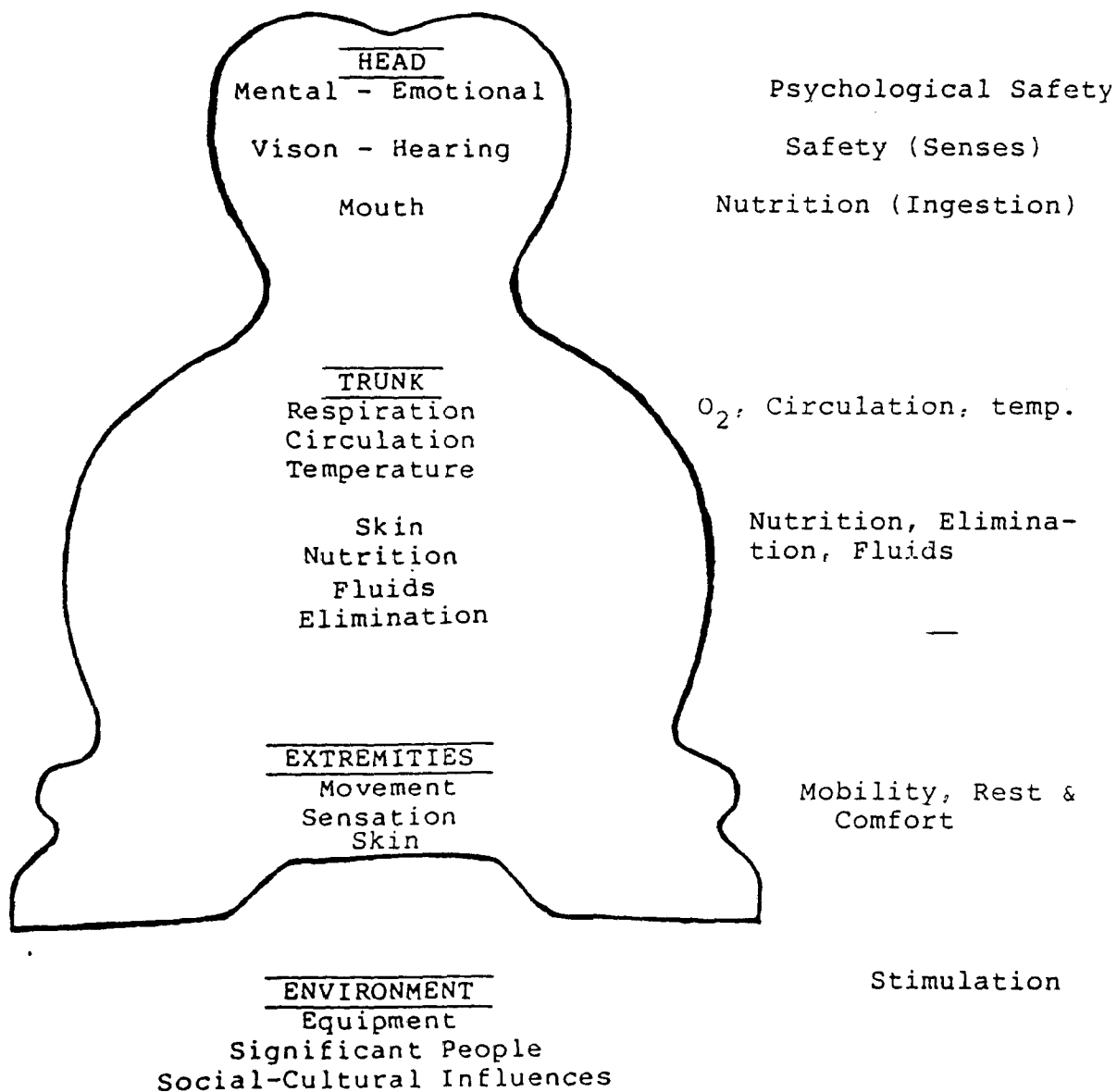
1. Study pp. 84-90; pp. 138-159; p. 609 (psychological preparation); p. 610 (organization) From: Fundamentals of Nursing Practice. Potter & Perry.
2. View Tape 11 and collect data noting instructions on tape.
3. Read and work through from Skills Text, Perry & Potter,
  - ( i) pp. 45-72
  - ( ii) pp. 278-279 (include Table 13-1, p. 281)
  - (iii) pp. 284 (General Survey) to 289.
  - ( iv) pp. 290 (Assessing Skin) to 301 (Assessing Eyes)
  - ( v) pp. 316 (Assessing Mouth) to 319.
4. Write quiz and attend seminar.
5. DESIRED SEQUENCE as per included information on "Short Assessment - Head-to-Toe".
6. The Return Demonstration will be done in the Nursing Arts Lab.  
\*For this Return Demonstration each student must bring a volunteer (not a fellow nursing student). Each student will then perform a head-to-toe assessment interview with a classmate's volunteer.

SHORT ASSESSMENT - HEAD TO TOE

INITIAL IMPRESSION

AGE - SEX - GENERAL STATE  
ANYTHING COMMANDING ATTENTION

HUMAN NEEDS



Idea  
Adapted from: Wolff, Helen & Eriskson, Roberta. "The Assessment Man". Nursing Outlook. February 1977. pp. 103-107.

<p><b>MENTAL STATUS</b>          -level of consciousness          -ability to communicate          -level of understanding          -educational background</p>	<p><b>EMOTIONAL STATUS</b>          -patient's response to care          -behavioral manifestations of anxiety          -feelings regarding his/her status</p>	<p><b>VISION &amp; HEARING</b>          -visual &amp; auditory acuity          -glasses/contacts/hearing aids</p>
<p><b>MOUTH</b>          -lips, tongue, mucous membranes, gums, teeth and saliva (see Narrow &amp; Buschle p. 369)          -hygienic care of mouth</p>	<p><b>RESPIRATION</b>          -rate, rhythm, depth and character of breathing          -observe for signs &amp; symptoms of respiratory difficulty          -patient's need for O<sub>2</sub>          -use of tobacco          -coughing          -any medications          -any respiratory disease eg) cold, asthma, bronchitis</p>	<p><b>CIRCULATION</b>          -pulse &amp; BP          -color of skin          -any symptoms specific to heart problems          -medications taken for heart, blood pressure or other cardiovascular problems</p>
<p><b>TEMPERATURE</b>          -temp. reading          -warmth to touch of patient's head, trunk, and extremities</p>	<p><b>SKIN</b>          -turgor, hydration, color, lesions, wounds, rashes, scars, tattoos, needle injection scars          -any sensitivity of skin to soaps or lotions          -hygienic care of hair &amp; nails</p>	<p><b>NUTRITION</b>          -observe food eaten          -ask re food likes and dislikes          -any dietary modification          -history in regard to food intake          -patient's knowledge of proper nutrition</p>
<p><b>ELIMINATION</b>  <b>Bowels</b>          -habits &amp; type &amp; frequency of stools          -normal pattern of bowel movements &amp; characteristics of stools          -history of constipation or diarrhea          -any medications?  <b>Urinary</b>          -usual patterns of urination &amp; the appearance &amp; odor of the urine          -incontinence?          -urinary catheter?          -history of urinary problems          -any medications?</p>	<p><b>FLUIDS</b>          -amount of fluid intake          -amount of urinary output          -any signs &amp; symptoms of dehydration</p>	<p><b>MOVEMENT</b>          -usual exercise and diversional choices          -effects of exercise          -joint or muscle pain or disability          -posture and positioning          -level of activity ordered by the physician          -any disease of bones, joints, &amp; muscles          -sleep &amp; need for rest</p>
<p><b>SENSATION</b>          -sensitivity to touch          -any pain          -its nature &amp; location, duration, patient's perception of intensity, pathophysiology involved, the time pain has been present, any medications used</p>	<p><b>EQUIPMENT</b>          -equipment, supplies &amp; objects in the room</p>	<p><b>PEOPLE - SOCIAL - CULTURE</b>          -significant people          -influences of social situation &amp; culture          -occupation, socioeconomic factors, previous hospitalizations &amp; responses, family relationships &amp; problem, sexual difficulties</p>

MENTAL STATUS	EMOTIONAL STATUS	VISION & HEARING
MOUTH	RESPIRATION	CIRCULATION
TEMPERATURE	SKIN	NUTRITION
ELIMINATION	FLUIDS	MOVEMENT
SENSATION	EQUIPMENT	PEOPLE - SOCIAL - CULTURE

Scale Level	Standard Procedure	Quality of Performance	Assistance
1. Imitation	Lacking accuracy Gross movements unsafe, unable to demonstrate skill, not based on principles.	Lacks coordination, lacks confidence, unable to demonstrate procedure.	Continuous verbal and physical cues.
2. Manipulation	Performs at risk to patient. Lacks essential principles. Not accurate. No patient explanation.	Unskilled, inefficient, expends excess energy, unsafe. No patient explanation.	Continuous verbal and physical cues all explaining by instructor.
3:1 (Laboratory) 3:2 (Clinical) - Precision	Safe Accurate most of time, work based on principles. At times explains procedure to patient.	Skillful in parts of the behavior, not lacking principles. Delayed time period. Give rudimentary explanation to patient.	Frequent verbal and occasional physical cues.  Instructor fills in gaps.
4. Articulation	Safe, accurate each time. Clear, accurate explanation.	Efficient, coordinated, confident. Within reasonable time. Accurate, complete explanation.	Occasional cues.  Occasional cues.
5. Naturalization	Safe, accurate each time.	Proficient, confident, coordinated. Within expedient time period.	Without cues.

## APPENDIX I

### BIBLIOGRAPHY

#### A. JOURNAL ARTICLES - OPTIONAL READING

##### LESSON 1

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##### LESSON 2

Howden, Laurel. "Basic Back Care". Canadian Nurse. July/August 1981. pp. 46-50.

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Machean, Jill et. al. "Restraining the Elderly Agitated Patient". Canadian Nurse. June 1982. pp. 44-46.

Misik, I. "About Using Restraints - With Restraint". Nursing. August 1981. pp. 50-55.

##### LESSON 3

Hill, Martha. "What Can Go Wrong When You Measure Blood Pressure". A.J.N. May 1980. pp. 942-946.

##### LESSON 4

Feustel, D. "Pressure Sore Prevention - Aye, There's the Rub". Nursing. April 1982, pp. 18-20.

Gannon, E. & Kabezabek, E. "Giving Your Patients Meticulous Mouth Care". Nursing. March 1980. pp. 14-19.

Kerr, J., Stinson, S. & Shannon, M. "Pressure Sores: Distinguishing Fact From Fiction". Canadian Nurse. July/August 1981. pp. 23-28.

Mangieri, D. "Saving Your Elderly Patient From Pressure Sores". Nursing. October 1982. pp. 44-45.

Meissner, K. "A Simple Guide for Assessing Oral Health". Nursing. April 1980. pp. 24-25.

## Appendix 5

### Questions for Tape Sessions

#### Audio-Sessions

Research assistant will introduce each subject as follows:

"I am talking to a student from the control/experimental group."

The following questions will be asked:

- 1) What features of the evaluation did you like? Why?
- 2) What features did you dislike? Why?
- 3) Did you discuss the two methods of evaluation with you classmates?
  - What did these discussions revolve around?
  - Did these discussions take place once a week?  
twice a week?  
less or more often?
- 4) Would you like to add any comments?

#### Lab Instructor

- 1) What features of the psychomotor performance scale did you like?  
Why?  
What features of the critical elements evaluation method did you like?  
Why?
- 2) What features did you dislike? Why?
- 3) Did you discuss these two methods with student of opposite groups?
  - What did these discussions revolve around?
- 4) Would you like to add any comments?

Appendix 6  
Consent to Participate

Letter of Consent

I, the undersigned, do consent ( ) or do not consent ( ) to be a participant in the experimental group of the research examining different methods of evaluating students in the nursing arts laboratory.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_