DETAILED TEACHING GUIDES FOR COURSES IN NUTRITION AND DIETETICS FOR STUDENT NURSES AND DIETITIANS IN NEW ZEALAND HOSPITALS

by

GRACE ISABEL SMITH

Diploma in Home Science
University of Otago, New Zealand, 1948

A THESIS

submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Department of Institutional Management

KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE

1954
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>REVIEW OF LITERATURE</td>
<td>4</td>
</tr>
<tr>
<td>METHOD OF PROCEDURE</td>
<td>7</td>
</tr>
<tr>
<td>THE TRAINING OF STUDENT NURSES AND DIETITIANS IN NEW ZEALAND HOSPITALS</td>
<td>8</td>
</tr>
<tr>
<td>THE NUTRITION AND DIETETIC COURSES IN NEW ZEALAND HOSPITALS</td>
<td>13</td>
</tr>
<tr>
<td>THE TEACHING GUIDES</td>
<td>15</td>
</tr>
<tr>
<td>The Courses in Nutrition and Dietetics for Student Nurses</td>
<td>16</td>
</tr>
<tr>
<td>The Courses in Nutrition and Dietetics for Student Dietitians</td>
<td>76</td>
</tr>
<tr>
<td>REFERENCES FOR NORMAL NUTRITION</td>
<td>125</td>
</tr>
<tr>
<td>REFERENCES FOR DIET THERAPY</td>
<td>128</td>
</tr>
<tr>
<td>SUMMARY</td>
<td>132</td>
</tr>
<tr>
<td>ACKNOWLEDGMENT</td>
<td>134</td>
</tr>
<tr>
<td>LITERATURE CITED</td>
<td>135</td>
</tr>
</tbody>
</table>
INTRODUCTION

Good health and efficiency depend largely upon adequate food, adjusted to meet the demands of the body throughout the whole life span. With this newer emphasis on nutrition and its relation to health, education of the public has become even more important than formerly. Dietitians and nurses, because of the inherent nature of their professions, are among the people most concerned in the ever broadening sphere of nutrition education.

Dietitians have great responsibility in this matter. They teach nurses, student dietitians, employees, patients and others the value of good nutritional practices as well as the importance of nutrition in helping to prevent and control disease. A sound knowledge of subject matter, though essential, is not sufficient as dietitians must also be familiar with the newer teaching methods which help to make instruction more effective.

Until 1953, no specific preparation was given students specializing in dietetics at the School of Home Science, University of Otago, for organizing and teaching the courses in nutrition and dietetics in New Zealand hospitals and yet this was one of their most important responsibilities. The teaching aids for the teachers of these courses also have been very limited. Though some specific instruction in teaching in their own field is now given these undergraduate students, much work still remains to be done in this regard if nurses and dietitians are to make a greater contribution to the field of nutrition.
Instruction in nutrition and dietetics has become an important part of the student nurse's training in New Zealand. The Nurses and Midwives Board (1945) set up definite requirements for the teaching of nutrition and dietetics to student nurses, including the minimum number of clock hours for each course and the general topics to be covered. The need is recognized, personally and professionally, for adequate instruction in nutrition and dietetics in nursing education. Formerly it was thought that diet therapy was the only part that was important for nurses. With increased emphasis now placed on the application of normal nutrition in the prevention of disease and the maintenance of good health, instruction in this phase has become essential.

Learning sufficient subject matter to pass an examination is quite different from having mastered it well enough to teach it to someone else. Nurses, not only in the hospital wards but in the field of public health, are expected more and more to assume responsibility for teaching the principles of good nutrition to the public. When evaluating her teaching of nutrition the dietitian must keep in mind that the nurse is often the logical and perhaps the only available person to teach normal nutrition to laymen.

The importance must not be overlooked of the part played by members of the hospital dietary department and the nursing school in carrying out the teaching program. Both groups must
be in accord with the aims and methods of instruction used throughout the training period. The dietitian needs a knowledge of the whole nursing curriculum so that she may correlate her teaching with that of the doctors and tutor\(^1\) sisters. Likewise the medical and nursing staff members need to be informed of the nutrition and dietetic part and its relation to the total curriculum.

Today there is a trend in teaching which definitely influences the learning experiences of the student nurse. With the new ideas concerning selection, organization and arrangement of subject matter the emphasis is placed on the patient and his needs rather than on theoretical or "book" knowledge in one particular aspect, area or field. Training hospitals for nurses or schools of nursing are planning the curriculums in relation to the various aspects of nursing with which the nurse may be confronted. Thus the team consisting of doctor, dietitian, nurse, and social worker all share in the teaching of the student.

Because of these and other developments it is easy to see how the teaching of nutrition and dietetics needs to be revised in order to maintain good standards of nursing and dietetic care. The dietitian responsible for this teaching must change her methods of instruction to meet the new needs of the student dietitians and nurses and their patients. The content of the

\(^1\)Registered nurses who are in charge of a hospital ward are called sisters and those who teach student nurses, tutor sisters.
courses and methods of instruction should be reviewed at least annually to assure "up-to-dateness". Knowledge of subject matter alone is not sufficient for the dietitian. She must present this knowledge in a way that makes for maximum learning by the students and above all with enthusiasm. A lively interest in her students and an enthusiasm for teaching are essential prerequisites. When instruction in dietetics is accompanied with enthusiasm, the dietitian will not lack response from students, be they student nurses or dietitians.

There is need for improving the nutrition and dietetic courses taught to student nurses and dietitians in New Zealand hospitals and also for help in doing this. One way of providing such help is through the preparation of teaching guides for those responsible for teaching nutrition and dietetic courses to these two groups of students. The purpose of this study was to prepare detailed teaching guides for teachers of nutrition and dietetic courses for student nurses and dietitians in New Zealand hospitals that would aid in the improvement of these courses and increase their importance in the curriculums of which they are a part.

REVIEW OF LITERATURE

A review of literature revealed that no study of this type had been made in New Zealand, and as far as was ascertained, none had been reported as being done in the United States. A number of publications were found that were related to the teach-
ing of nutrition and dietetics to student nurses. However, none were found that dealt with the teaching of nutrition and dietetics to student dietitians during their hospital or intern year of training.

Bell (1950) in conjunction with the New Zealand Department of Health, prepared a bulletin "Lecture Notes on Normal Nutrition" which has been used since that time as a text for student nurses in the nutrition courses. This bulletin is used throughout all New Zealand training hospitals for nurses and although mainly a source of subject matter for these students, their instructors, tutor sisters or dietitians, use it as a guide for teaching. It contains subject matter only and no suggested guides for teaching are included. The author prepared this bulletin mainly with the idea of anticipating questions that may be asked by student nurses and with the hope of stimulating interest in what had been a rather neglected subject in their training.

The American Dietetic Association (1933) published in bulletin form the minimum requirements for the food and nutrition part of the nursing curriculum in approved hospitals in the United States. This bulletin was based on suggestions received from many dietitians, and representative hospitals and schools of nursing in the United States and Canada in response to a questionnaire submitted to the members of the Association. In 1938 the recommended requirements for this same part of the nursing curriculum were published in similar form by this Association. These requirements were somewhat higher than the mini-
mum ones of the earlier bulletin. Although these bulletins consisted mainly of outlines of subject matter and indicated allocations of time for each course, a few suggestions for teaching the courses were included.

The Professional Committee of the American Dietetic Association after several years of work on the project, published the book, (1949), "A Manual for Teaching Dietetics to Student Nurses". However, this publication is more of a general source book for teachers than a specific guide for teaching the food and nutrition courses of the nursing curriculum. It does suggest, though, in addition to an outline of subject matter content, learning experiences designed to achieve the many objectives for the courses developed by the Professional Education Section of the American Dietetic Association and the Curriculum Committee of the National League of Nursing Education. These objectives are also included in the manual.

Rynbergen (1953) prepared a guide for using the text "Nutrition in Health and Disease" by Barber, Cooper, Mitchell and Rynbergen in food and nutrition courses for student nurses. The teaching guides incorporated in this bulletin tend to be restricted to increasing and improving the use of this text. Plans for 60, 72 and 90 hour time allotments for formal classroom instruction in all of the courses in foods and nutrition were included in the bulletin. The suggestion was also made that classroom work should be supplemented by conference hours in the 60 hour course and that this conference work either sup-
plement or be substituted for some of the hours in the 72 and the 90 hour time allotments. The subject matter to be taught in the courses was based on that of the text by Cooper, Barber, Mitchell and Rynbergen.

The text, "Nutrition and Diet Therapy" by Proudfit and Robinson (1949) has long been used as a source of subject matter for the food and nutrition courses for student nurses in the United States and for similar courses elsewhere. The book has undergone a number of revisions the most recent one being in 1949. Included also are questions for guidance in study as well as some suggested student activities.

Another widely used book in food and nutrition courses for nurses is "Nutrition and Diet in Health and Disease" (1953) by Cooper, Barber, Mitchell and Rynbergen. It was written as a text for nurses and especially for use by them in their food and nutrition courses. Originally written by the first three named authors, a fourth person was added in the preparation of the present twelfth edition. The book is mainly a source of subject matter with no suggestions for teaching included.

METHOD OF PROCEDURE

Data relative to the training of nurses and dietitians in New Zealand were obtained from the School of Home Science of the University of Otago, the New Zealand Department of Health hospitals approved for the training of nurses and dietitians, and certain Acts of the New Zealand Parliament pertaining to
the training and registering of nurses and dietitians. All were reviewed and summarized in relation to the nutrition and dietetic part of the hospital curriculums for student nurses and dietitians, and a brief comparison was made with such education and training in the United States. On the basis of these data and the personal knowledge and experience of the investigator, detailed teaching guides were developed for the nutrition and dietetic courses taught to student nurses and dietitians in New Zealand hospitals. The guides followed a modification of the unit problem plan of curriculum organization which in this case omitted blocking the courses into units. This omission was due to the brief time allotment for the courses. The teaching guides, when completed, were submitted for checking and suggestions to one member of each of the Departments of Education, Institutional Management, and Foods and Nutrition of Kansas State College and two former dietitians. The guides were then reworked and put in final form.

THE TRAINING OF STUDENT NURSES AND DIETITIANS IN NEW ZEALAND HOSPITALS

Thirty-six hospitals are designated in New Zealand as training schools for nurses or schools of nursing, with an average of 650 nurses being trained each year. The length of the training period is approximately three years. For admission to one of these schools the minimum age requirement is 18 years, but many of the nurses before commencing their training have been employed in wage earning occupations and tend to be
older than the girls coming direct from the secondary schools. In most hospitals two years of secondary education is advocated as a prerequisite preparation for the nursing profession. Student nurses are provided with maintenance, professional clothing and salary throughout the time they are in training.

Formal classroom instruction, which includes subjects such as nursing, nursing practice, anatomy, physiology, bacteriology and hygiene, is conducted by tutor sisters whose sole responsibility is that of teaching the student nurses. Lectures are also given these students by doctors from the hospital staff. Instruction in nutrition and dietetics in the larger hospitals is given by a dietitian but in the smaller hospitals this responsibility falls on the tutor sister.

Each training school may have a different organization for its teaching program. In some hospitals the block system is favored. In this type of organization the student nurses spend several months in addition to the first six weeks of their training, in classroom work and are completely free of ward duties. Other schools set aside one day a week which is devoted entirely to class or study time for certain groups of student nurses. Yet another system is to have classes along with the routine work in the wards. Classes are scheduled on certain days at a definite time and the student nurses concerned are expected to be present regardless of their ward assignments.

Instruction in nutrition begins in the first six weeks of the student nurse's training period. The two courses in-
cluded at this time are Invalid Cookery and Service of Food, and Introduction to Nutrition which is a very brief course in nutrition. The total minimum time allotted for these courses is ten clock hours. Toward the end of the six week period the student nurses are assigned to the wards in the afternoons so they may have some experience in ward routine.

During the second year of training the course, Normal Nutrition is offered for which the minimum time allotment is ten clock hours. Very little out-of-class study is expected of student nurses in this course. At the end of the second year or during the third year classes are conducted for the course in Diet in Disease. The minimum time allotted for this course is six clock hours. In addition to this each student nurse is required to spend 96 clock hours in practical work on diet therapy in the special diet kitchen or in a ward kitchen.

Hospital and state examinations are held twice each year for student nurses, the hospital one six weeks prior to that of the state. Unless a student passes the hospital examination, she is not eligible to take the state examination and must wait for the next examination which will occur in six months. A two hour paper including questions of both nutrition and diet therapy forms part of both these examinations.

Post graduate work is available for registered nurses in a number of fields. At this level, instruction in nutrition and diet therapy may be given by well qualified specialists in each field, or by a Health Department dietitian.
Student dietitians are trained in different ways but in either instance the basic academic education is done at the School of Home science of the University of Otago in Dunedin. A graduate of the School who has specialized there in institutional management may become a dietitian after fourteen months of further training and education in one of the three hospitals approved for giving this. These are the Auckland, Christchurch, and Wellington hospitals. After this is completed the student dietitian is eligible to take the state examination for dietitians. The curriculum at the Home Science School includes courses in chemistry, physics, anatomy, physiology, bacteriology, histology, nutrition and dietetics, institutional management, home management, foods, clothing and design, mothercraft and methods of teaching. Occasionally a Home Science graduate who specialized in teaching is accepted for this dietetic training and education.

Hospital instruction for the student dietitians includes courses in nutrition, dietherapy and dietary administration. The nutrition and diet therapy courses are usually conducted by a member of the hospital medical staff and the tutor dietitian follows up the class instruction with explanatory lectures of her own. The minimum time allotment for instruction in nutrition and diet therapy is sixteen clock hours.

The examination papers that make up the state examination for dietitians are set by persons chosen from a panel of examiners appointed by the Dietitians Board of the New Zealand Dietetic
Association. After the completion of the hospital training period and the passing of the state examination for dietitians, the student dietitian is promoted to the rank of staff dietitian and is expected to stay on in her training hospital until she has completed a total of two years' service here. Like the student nurses, student dietitians during their hospital training receive a salary in addition to maintenance and certain professional clothing.

A registered nurse may also become a dietitian by studying two years at the School of Home Science. Here she takes courses in chemistry, physiology, foods, nutrition and dietetics, and institutional management. While enrolled at the University she spends vacation time in the Dunedin hospital as a student dietitian and also additional time until she has served a total of ten months in this capacity. She is then eligible to take the state examination for dietitians, after which she is qualified to be a staff dietitian. Only the Dunedin hospital provides training for nurses preparing to be dietitians. During the past five years there has been an average of eleven dietitians trained each year in all four of the hospitals.

The training and education of student nurses and dietitians follow very similar patterns in both New Zealand and the United States. The professional prerequisite courses required for student nurses are approximately the same in the two countries. For student dietitians the required academic education is done in a School of Home Science or Home Economics or a Department of
Home Economics that is approved by the accrediting agency of the particular country. Many of the required courses are similar in both countries. However, the graduate of the New Zealand School of Home Science at the University of Otago has more in the physical and biological sciences incorporated into her university courses than does the college graduate in Home Economics in the United States preparing to be a dietitian. However, this American student receives much more instruction in the social sciences than does the New Zealand one. Another difference is that in New Zealand the student dietitian receives almost all of her instruction in diet therapy during her hospital training, which is not the case in the United States.

The standards for the nursing and dietetic professions are high in both New Zealand and the United States. Though not developed and maintained in exactly the same way, the standards in general are similar and are based on many of the same principles. In both of these countries most helpful in this matter of standards are the professional organizations of these and related professions, all of which work closely and cooperatively with local, state and national governments and their representatives in carrying out legislative acts and in securing new ones as needed for the protection and promotion of the health of the people.

THE NUTRITION AND DIETETIC COURSES IN NEW ZEALAND HOSPITALS

1. All registered dietitians according to the Dietitians Act
(1950) have had at least three or four years of university training at the School of Home Science, University of Otago. This was followed by fourteen months of internship in a training hospital during which time they take a course in nutrition and one in diet therapy. Both are advanced courses and are related to the professional work of their internship.

2. Most of the dietary departments in the larger hospitals employ a tutor dietitian who is responsible for the teaching of student nurses and dietitians. Sometimes student dietitians do some teaching of student nurses, especially the beginning courses.

3. The curriculum in nutrition and dietetics is required for all student nurses by the Nurses and Midwives Board and is the same throughout New Zealand. This Board has also listed the topics to be covered in the courses.

4. The training of student nurses and the state final examination taken at the end of their instructional period were the same in all hospitals.

5. A bulletin, "Lecture Notes for Normal Nutrition" has been published by the Department of Health and is used in all New Zealand hospitals training student nurses; however, no planned teaching guides or course of study has ever been made available.

6. Only since 1953 has there been included in the University curriculums in dietetics and institutional management specific instruction in teaching student nurses and dietitians. Most dietitians therefore, have had to learn the teaching of student nurses on the job and from experience as they themselves have had no special instruction in this type of teaching.

7. The courses in nutrition are sometimes taught by student dietitians who are inexperienced, and have had very little training in methods of teaching student nurses.

8. Because there may be little difference in the age of young dietitians, student dietitians and student nurses, maintaining discipline may frequently be a problem.

9. The dietitian in some hospitals, in the eyes of student nurses, does not have as high a standing as the tutor sister (nurse).

10. Due to the size of the classes, as for example 50 to 60 in normal nutrition, and to the short amount of time allotted to the courses, a dietitian does not always have the oppor-
tunity to learn even the names of the student nurses. In some hospitals one course may be given to three different groups in the same period of training.

11. In hospitals where the tutor dietitian is also an administrator, or where the dietary department is short staffed, she may have very little time for class preparation.

12. The time allocated for the courses in nutrition and dietetics was extremely short, the minimum being a total of 26 clock hours outside of any study time. This is in great contrast to the amount and scope of subject matter to be covered. Outside study was not required unless the dietitian makes a specific assignment.

13. The ages of the student nurses vary considerably, but none was less than 18 years. In any group of student nurses there is great variation in their abilities, including I. Q. This group, too, will have different attainment levels in secondary education, varying from two to four years. There may be a difference in experience among the group. Some will have followed a money earning occupation before entering nurses training, while others will have come immediately from the secondary school.

14. Student nurses often do not know how to study, especially if they have previously had poor study instruction and facilities. Also, they may be tired if the class is held late in the afternoon or out of block or class time.

15. Nutrition and dietetics courses tend to be disliked by nurses. Sometimes, too, there may be lack of appreciation on the part of some tutor sisters (nurses) and doctors as to the importance of nutrition.

**THE TEACHING GUIDES**

The teaching guides of this study are what would often be regarded as a course of study. However, these were carried much further in their development than is usually done with courses of study. Though the general organization of the guides followed that of the courses for which these were prepared, each guide was set up in relation to the daily lessons. The titles
of these were stated as problems and so designated in the guides. For each problem the following were determined: teaching points, or basic subject matter; references for students; and suggestions for student activities. Teaching points were expressed in the statement form, and with few exceptions page numbers were given for each reference.

The teaching guides were prepared to aid teachers in developing and teaching the courses involved and were not intended for student use. The guides do provide however, a basis and a source of materials for preparing guide sheets to aid students in mastering the problems and courses, and tests to evaluate student progress. A number of examples of student guide sheets and of several types of objective test questions were formulated and included in the teaching guides.

The Courses in Nutrition and Dietetics for Student Nurses

Needs of student nurses related to the courses in nutrition and dietetics.

1. Realizing the importance of good nutrition in health and disease.

2. Developing an interest in nutrition and dietetics.

3. Knowing the Daily Dietary Pattern for New Zealand people and applying it in choosing their own food.

4. Realizing the existing errors in the New Zealand average diet and how these errors may be corrected.

5. Knowing the food requirements for all age groups and how these can be met.
6. Following good food practices.

7. Preparing and serving foods most commonly served to patients.

8. Planning menus for patients of different economic levels.

9. Serving food in an attractive manner to patients.

10. Applying their knowledge of nutrition and dietetics to their practical work in the wards and diet kitchen.

11. Teaching patients the fundamentals of good nutrition.

12. Helping patients to understand and accept their diets.

Guiding principles for the course in nutrition and dietetics for nurses.

1. The nutrition and dietetics part of the nursing curriculum should be based on the needs of nurses relative to nutrition and dietetics.

2. The nutrition and dietetics part of the nursing curriculum must meet the requirements for instruction in nutrition as set up by the National Nurses and Midwives Regulations.

3. Plans for the courses in nutrition and dietetics must be made within the time allotment for this part of the nursing curriculum.

4. These courses should be based upon the science background of the student nurses.

5. These courses should stimulate an interest in nutrition and dietetics on the part of the student nurses.

6. These courses should help nurses apply their knowledge of nutrition and dietetics to themselves as well as their hospital work.

7. These courses should be revised and changed frequently to keep pace with new findings and developments in nutrition, dietetics and medicine.

Objectives for the courses in nutrition and dietetics for nurses.

1. To understand the importance of good nutrition in health and disease.
2. To develop an interest in nutrition and dietetics.

3. To know the special importance for nurses to have an adequate knowledge of nutrition and dietetics.

4. To know the relation of good nutritional practices to nursing care.

5. To apply knowledge in nutrition and dietetics in everyday living.

6. To know the terms commonly used in nutrition and dietetics.

7. To know the general nutritional state of New Zealand people.

8. To understand the underlying principles involved in planning menus and diets in health and disease.

9. To plan menus and prepare and serve food attractively to patients.

10. To know reliable sources of information related to food and nutrition.

General allocation of nutrition and dietetic courses for nurses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Time Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Nutrition</td>
<td>4-6 one hour periods</td>
</tr>
<tr>
<td>Invalid Cookery and Service of Food</td>
<td>8-10 two hour periods</td>
</tr>
<tr>
<td>(Both courses are offered during the first six weeks of the first year of training.)</td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td>10-12 one hour periods</td>
</tr>
<tr>
<td>(Offered during the second year of training.)</td>
<td></td>
</tr>
<tr>
<td>Diet in Disease</td>
<td>6-12 one hour periods</td>
</tr>
<tr>
<td>(Offered during the second or third year of training.)</td>
<td></td>
</tr>
</tbody>
</table>

Minimum number of hours for total course offerings—26 hours
Introduction to Nutrition 4-6 one hour classes
(Offered during the first six weeks of the first year of training.)

Objectives:
1. To begin the development of an interest in nutrition.
2. To know the importance to nurses of an adequate knowledge of nutrition.
3. To know what the term nutrition means.
4. To have some knowledge of the classification of food constituents.
5. To know how foods may be grouped.
6. To know the general ward diets used in the hospital.
7. To know the relationship between methods of food preparation and nutrition.
8. To know the basic rules in serving food to the sick.

Introduction to Nutrition 4-6 one hour classes
plus outside study time

Problems: (lessons)
1. What is nutrition?
2. Why should nurses learn about nutrition?
3. How are foods and food constituents grouped and classified?
4. How is nutrition related to preparing and serving food?
5. What are the general ward diets used in this hospital?
6. What are the rules for serving food to the sick?

Problem 1. What is nutrition?

Teaching points:
1. Nutrition is the process of supplying the body with the necessary food nutrients.
2. Metabolism is a body process that is the sum of the breaking down and building up processes which go on in the body.

3. The food nutrients are protein, fats, carbohydrates, minerals, vitamins, water and cellulose.

4. Good nutritional practices are important for people of all ages.

5. Food habits are formed at an early age and many times are difficult to modify or change.

6. The physical characteristics of good nutrition are a clear skin, bright eyes, shiny hair, alert appearance, good posture, good teeth, and strong muscles.

7. The caloric requirements of the body must be met through our food.

8. Lack of essential food nutrients in the diet may lead to nutritional deficiencies.

References:

Bell. Lecture notes on normal nutrition. pp. 2-5.


Preparation by students for each lesson includes reading of listed references. During class time students participate in discussion and recitation. The activities are based upon the readings.

Activities:

Name the characteristics of good nutrition and illustrate by indicating members of the class who show evidence of good nutrition.
Problem 2. Why should nurses learn about nutrition?

Teaching points:

1. Every person should have some knowledge of nutrition and nurses need more than the average person.
2. Nutritional therapy is widely used in the treatment of disease.
3. Many diseases formerly of unknown cause are now curable by nutritional therapy.
4. Poor nutritional practices may be the cause of nutritional deficiencies and may contribute to various kinds of illness.
5. Nutritional deficiencies may be caused by various illnesses.
6. A sound knowledge of nutrition is necessary before the role of diet in disease can be understood.
7. Nurses need to know the true and the false in nutrition that they may answer correctly patients' questions.
8. A nurse should be prepared to teach her patients the fundamentals of good nutrition.

References:

Bell. Lecture notes on normal nutrition. pp. 3-7.

Activities:

Discuss the meaning of nutritional deficiencies and illustrate each by pictures that show the signs and symptoms of the various deficiency states in a person.
Make a list of the illnesses which may be caused by poor nutritional practices, indicating the cause or causes of each.

Problem 3. How are foods and food constituents grouped and classified?

Teaching points:

1. Foods may be grouped according to function: body builders, energy providers, body regulators.

2. Foods are also grouped according to composition: protein, carbohydrates, fat, vitamin and minerals.

3. The food nutrients are classified as follows: protein, fats, minerals, vitamin, water and cellulose.

4. Proteins are body building substances.

5. Carbohydrates and fats supply the body with energy for heat and work.

6. Minerals are body building substances but are also body regulators.

7. Vitamins stimulate and regulate body functions.

8. Water and cellulose are body regulators.

References:


Activities:

Arrange food models according to the main food groups.

View a film explaining the functions in the body of the essential food nutrients.
Problem 4. How is nutrition related to preparing and serving food?

Teaching points:

1. The nutritive value of foods is decreased by incorrect preparation and service.
2. Protein becomes toughened and indigestible when over-cooked.
3. Starchy foods must be well cooked to be properly digested.
4. Fried foods must be cooked at the correct temperature and well drained to prevent poor digestion.
5. Minerals and vitamins in vegetables dissolve in the cooking water which should not be discarded.
6. Fruits and vegetables should be prepared just in time for serving.
7. Correct cooking methods used with vegetables and fruits cause retention of vitamins, especially vitamin C.
8. Foods kept hot for long periods of time lose their nutritive value.

References:


Hospital diet manual.

Notes for preliminary nurses on invalid cookery and service of food.

Activities:

Name the ways in which much of the nutritive value of vegetables may be lost through preparation and service.

Show how each of these ways could be modified or changed so that the nutritive loss would be reduced or avoided.
Problem 5. What are the general ward diets used in this hospital?

Teaching points:

1. The general ward diets include foods prepared in the main hospital kitchen and the ward kitchen.

2. A full or regular diet includes all foods listed in the Daily Dietary Pattern for New Zealand.

3. A light diet is intended for convalescent patients not yet able to take the regular diet, and those with minor illness.

4. The foods included in a light diet are plainly cooked, and no fried foods or rich pastries are served.

5. A soft diet consists of liquids and semi-liquid foods, and is the step between the light and liquid diets.

6. The soft diet is low in residue and includes easily digested foods.

7. In acute conditions, including post operative ones, a liquid diet is given.

8. The caloric value of a liquid diet may be varied to fit the patient's needs.

References:

Hospital diet manual.

Notes for preliminary nurses on invalid cookery and service of food.

Activities:

Make a list of the foods that could be included in
(a) a light diet.
(b) a liquid diet.

Compare the lists.

Problem 6. What are the rules for serving food to the sick?
Teaching points:

1. The food should be colorful and attractively prepared and served.
2. The food portions served are medium or small in size depending upon the patient and his illness.
3. Hot food should be served hot, and cold foods cold.
4. Cups and glasses should be filled to within one inch of the top.
5. Clean tray cloths, attractive china and polished silver should be used.
6. The correct dish should be used for each item on the menu.
7. The tray should be placed in a comfortable position for the patient.
8. The patient should be asked after each course whether more food is desired.

References:


Notes for preliminary nurses on invalid cookery and service of food.


Activities:

Form into groups and each demonstrate the setting up of trays for breakfast, dinner and tea.

Invalid Cookery and Service of Food 8-10 one hour periods
(Offered during the first six weeks of the first year of training.)

Objectives:

1. To prepare foods commonly served to patients.
2. To serve attractive tray meals.

3. To know, use and care for the equipment required in the preparation and service of food for patients.

4. To know the relation of nutritive value to the preparation of food.

5. To know the relation of cost and the nutritive value of food.

6. To know the characteristics of the general ward diets.

7. To store and care for patients' and ward food supplies.

8. To follow sanitary practices in handling food for patients.

Invalid Cookery and Service of Food 8-10 two hour classes

Problems (lessons)

1. What laboratory procedures shall be followed? (1 hour)

2. How shall a fruit drink and thin bread and butter be prepared and served? (1 hour)

3. How shall tea, toast, stewed fruit and poached egg be prepared and served?

4. How shall coffee, scrambled eggs on toast, and baked fruit be prepared and served?

5. How shall milk drink, sandwich and raw fruit be prepared and served?

6. How shall cream of vegetable soup, omelet and cereal milk pudding be prepared and served?

7. How shall fish, mashed potato, carrots and egg custard be prepared and served?

8. How shall vegetable and fruit salads, cooked salad dressing, Spanish cream and cheese dish be prepared and served?

9. How shall green vegetables, baked potato, liver and bacon be prepared and served?
10. How shall a liquid diet for one day be prepared and served?

11. How shall a light diet for one day be prepared and served?

Problem 1. What laboratory routine and procedures shall be followed? (1 hour)

Teaching points:

1. Each girl is responsible for her own drawer and cupboard and the equipment each contains.

2. Two girls will work together when preparing assigned foods.

3. Recipes must be read and followed carefully by each girl.

4. Products should be ready to serve together, served on a tray as if for a patient, and brought to the dietitian for evaluation.

5. Neatness and orderliness when working are important in preparing and serving food.

6. The trays used for serving are set correctly for the type of meal being served to the patient.

7. Small servings should be given and placed neatly on the plate.

8. Garnishes are used whenever possible to add to the attractiveness of the dishes prepared.

9. Two monitrees will be assigned at each lesson to carry out the housekeeping duties.

References:


Notes for preliminary nurses on invalid cookery and service of food.

Preparation by the students for each lesson consists of reading
the assigned references, including recipes to be used.

Activities:

Explore the laboratory and find where trays, china, sil-
verware and linen are stored.

Check individual drawers and cupboards to make sure all
equipment listed is present.

Practice the laboratory routines to be followed.

Practice the setting up of trays for breakfast, dinner and
tea.

Problem 2. How should a fruit drink and thin bread and butter
be prepared and served? (1 hour)

Teaching points:

1. A fruit drink is prepared according to the given recipes
and served cold or hot in a tumbler or cup placed on a
saucer.

2. Thin bread and butter is prepared by softening the
butter and spreading on the face of the loaf of bread;
then cutting in thin slices with a sharp knife; and if
the bread is very new, dipping blade in hot water
before cutting.

3. Thin bread and butter is cut into triangles and served
on a bread and butter plate.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health

Notes for preliminary nurses on invalid cookery and serv-
ice of food.

504-505, 507, 582.
Activities:

Prepare and serve the assigned foods and bring to the dietitian for judging.

Judge the foods prepared by self and one other student. compare with the ratings of the dietitian.

List the important factors in tray service.

Carry out housekeeping duties and when these are finished report to the dietitian for checking of drawers and cupboards.

Problem 3. How shall tea, toast, stewed fruit and poached egg be prepared and served?

Teaching points:

1. Tea is prepared by pre-heating the tea pot with boiling water, adding 1 teaspoon of tea per person to be served, filling with one cup of boiling water for each person and allowing to stand 3-5 minute before serving.

2. Toast is prepared by toasting bread to a golden brown in an oven, under a grill, or in a toaster and spreading with butter when slightly warm.

3. Stewed fruit is prepared by peeling the fruit, cutting it into sections, and cooking in a boiling syrup of sugar and water until tender.

4. A poached egg is prepared by cracking the egg into a saucer, sliding it gently into a pan of simmering salted water and allowing it to cook over very low heat until the yolk is coated with a white film.

5. Tea is served either in a cup or in an individual tea-pot which must be piping hot.

6. Toast is served in fingers or in triangles, with or without removing the crusts, and is placed on a bread and butter plate.

7. Stewed fruit is served, whether hot or cold, in small coupé dishes.

8. Poached egg is usually served on buttered toast, placed on a savory plate, garnished with parsley and always served hot.
References:


Notes for preliminary nurses on invalid cookery and service of food.


Activities:

Prepare and serve the assigned foods and bring to the dietitian for judging.

Judge the foods prepared by self and one other student and compare with the ratings of the dietitian.

Make a list of the important points to remember when preparing and serving tea, toast, stewed fruit and poached eggs.

Do the housekeeping duties and report to the dietitian for checking of drawers and cupboards.

Problem 4. How shall coffee, scrambled eggs on toast and baked fruit be prepared and served?

Teaching points:

1. Coffee is prepared by pouring freshly boiled water on the coffee, letting it come to the boil and settling the grounds with a little cold water before setting aside to steep for 2-3 minutes.

2. Scrambled eggs are prepared by beating the eggs slightly, adding milk and seasonings, pouring into a saucepan containing melted butter and stirring very gently until set and shiny.

3. Overcooking or overstirring scrambled eggs should be avoided as they will become watery and unpalatable.

4. Baked fruit is prepared by coring the fruit, filling the center with dates and brown sugar, adding a little water, and baking in the oven until soft.
5. Coffee is served piping hot in a cup placed on a saucer.

6. The scrambled eggs are served hot on buttered toast garnished with a sprig of parsley.

7. Baked fruit may be served either hot or cold in a small contemplate dish.

References:


Notes for preliminary nurses on invalid cookery and service of food.

Activities:

Prepare the assigned foods and bring to the dietitian for judging. Judge some of these foods, using a score sheet.

Demonstrate the making of scrambled eggs.

Do the housekeeping duties and report to the dietitian for the checking of drawers and cupboards.

Problem 5. How shall milk drinks, sandwiches and raw fruit be prepared and served?

Teaching points:

1. Hot milk drinks including chocolate, cocoa, Milo and Bournvita are prepared by heating the milk in a double boiler and adding the sugar with the flavoring agent.

2. Eggflips are made by beating the egg thoroughly, adding sugar and salt and beating until dissolved and then adding milk.

3. Sandwiches are prepared by buttering and cutting thin slices of bread, spreading with filling and pressing the slices together firmly.

4. Raw fruit is prepared by washing the fruit, wiping with a dry cloth and if too large for one serving, cutting into smaller portions.
5. Hot milk drinks are served hot in a cup on a saucer.
6. Eggflips are served in a tumbler and garnished with grated nutmeg or chocolate.
7. Sandwiches are cut into fingers or triangles, arranged on a lettuce leaf, placed on a bread and butter or savory plate, and garnished with a sprig of parsley.
8. Raw fruit is served on a bread and butter plate or in a small coupé dish if eaten with a spoon.

References:

Notes for preliminary nurses on invalid cookery and service of food.


Activities:
Assist in a demonstration of the different ways of preparing oranges and grapefruit.
Prepare and serve the assigned foods and bring these to the dietitian for judging. Select a committee to place the foods in order of their quality. Class evaluates the placement.
Discuss the factors necessary for the service of attractive sandwiches.
Do the housekeeping duties and report to the dietitian for the checking of drawers and cupboards.

Problem 6. How shall cream of vegetable soup, omelet and cereal milk pudding be prepared and served?

Teaching points:
1. Cream of vegetable soup is prepared from a thin white sauce and puréed vegetables.
2. The vegetable must be added to the sauce and both must be the same temperature to prevent curdling.

3. Omelets are of two kinds, plain and fluffy, the former being prepared with beaten whole eggs, and the latter with whites and yolks beaten separately.

4. Both kinds of omelets are cooked in an oiled frying pan until browned and set but not tough.

5. Cereal milk puddings are made by placing the cereal, milk, and flavoring in the top of a double boiler and cooking over boiling water until thick.

6. Cream of vegetable soup is served in a heated soup plate and garnished with chopped parsley.

7. Omelets are served piping hot on a heated savory plate and are garnished with a sprig of parsley.

8. Cereal milk pudding is served in a pudding plate, hot or cold, with or without stewed fruit.

References:


Notes for preliminary nurses on invalid cookery and service of food.


Activities:

Observe a demonstration of omelet making given by a student or the dietitian.

Prepare the assigned foods and bring to the dietitian for judging.

Discuss how curdling might be prevented in the making of cream of vegetable soup.

Do the housekeeping duties and report to the dietitian for the checking of drawers and cupboards.
Problem 7. How shall fish, mashed potato, carrots and egg custard be prepared and served?

Teaching points:

1. Fish may be cooked in a variety of ways - baked, steamed, grilled, or fried.

2. Mashed potato is prepared by cooking the potato in a small amount of boiling salted water, straining off the water, adding milk and butter and whipping until white and fluffy.

3. Carrots are prepared by peeling or scraping, cutting into stripe or circles, and cooking in a small amount of boiling salted water until tender.

4. Egg custard is baked in the oven at a low temperature, or steamed on top of the stove in a double boiler.

5. Baked custard contains less milk per egg than a soft custard.

6. Fish, mashed potato and carrots are served as the first course of a dinner and are placed on a hot dinner plate, and garnished with parsley.

7. Baked custard may be served hot or cold in a pudding plate, alone or with stewed fruit.

8. Soft custard may be served hot or cold with stewed fruit or as a sauce for steamed or baked puddings.

References:


Notes for preliminary nurses on invalid cookery and service of food.


Activities:

Prepare the assigned foods and bring to the dietitian for judging by the class.

Decide the best kinds of fish to buy for baking, steaming,
grilling and frying.

Make a list of the rules to remember when cooking vegetables.

Give the reasons for a poor product when making egg custards.

Do the housekeeping duties and report to the dietitian for the checking of drawers and cupboards.

Problem 6. How shall vegetable and fruit salads, cooked salad dressing, Spanish cream and cheese dishes be prepared and served?

Teaching points:

1. Salads may be the appetizer in a meal or the main course of lunch or tea.

2. Salad ingredients should be fresh, colorful and crisp, and blend well together.

3. Cooked salad dressing must be prepared strictly according to directions to avoid curdling.

4. Spanish cream is a variation of a soft custard set with gelatin, and should be fluffy in texture throughout.

5. Cheese dishes, being high in nutritive value, are served as main dishes for lunch and must be cooked at a low temperature to prevent toughening of the protein.

6. Salads are served individually in lettuce cups or mounds of shredded lettuce placed on savory plates and accompanied with slices of cold meat.

7. Spanish cream is served on a cold coupé dish with or without stewed fruit or jelly.

8. Cheese dishes are served on a hot savory plate and are garnished with parsley.

References:

Notes for preliminary nurses on invalid cookery and service of food.


Activities:

Formulate rules to be followed in salad making.

Name the precautions to be taken to prevent curdling of the salad dressing.

Prepare and serve the assigned foods and bring to the dietitian for judging.

Class judge the salads prepared, and tell on what points they judge the product.

List the rules to be followed in cooking protein foods.

Do the assigned housekeeping duties and report to the dietitian for the checking of drawers and cupboards.

Problem 9. How shall green vegetables, baked potato, liver and bacon be prepared and served?

Teaching points:

1. Green vegetables are prepared by washing under running water and then cooking in a small amount of boiling salted water until tender.

2. Baked potato is prepared by scrubbing the potato, rubbing it with fat, and cooking in a hot oven until soft.

3. Bacon is prepared by placing in a frying pan and cooking over moderate heat until crisp and golden brown.

4. Liver is prepared by dipping strips one inch thick in seasoned flour and cooking in hot bacon fat until brown and tender.

5. Green vegetables are carefully strained, buttered and chopped before serving hot on a hot dinner plate.

6. A cross is cut on top of the baked potato to allow
steam to escape before serving with the green vegetable.

7. Liver and bacon, when the main course for lunch or tea, are served on a hot savory plate; and when the meat for the first course of a dinner, are served with the baked potato and green vegetable on a hot dinner plate.

8. All food should be tasted for seasoning before serving.

References:


Notes for preliminary nurses on invalid cookery and service of food.


Activities:

Give the rules to be followed in cooking green vegetables, and explain why these rules are necessary.

List the precautions necessary when preparing liver and bacon.

Prepare the assigned foods and bring to the dietitian for judging by a class committee.

Carry out the housekeeping duties and report to the dietitian before leaving.

Problem 10. How shall a liquid diet for one day be prepared and served?

Teaching points:

1. A liquid diet is prescribed for patients with acute infection, inflammatory conditions of the gastro-intestinal tract and following surgery.

2. Foods included in a liquid diet are strained cream soups, cereals, and fruit juices, egg flip, milk, milk beverages, ice cream, gelatin, junket and soft custards, tea, coffee and cocoa.
3. The total caloric value of the liquid diet may be increased or decreased according to the patient's needs.

4. A patient may progress from the liquid to the soft, to the light and on to the regular or full diet.

5. Plain ice cream, junket and plain gelatin desserts are allowed as convalescence proceeds.

6. Feedings consisting of 6-8 ounces or more should be given every 2 or 3 hours, during waking hours.

7. Junket is prepared by heating the milk and sugar to blood heat, pouring into a dish in which to be served, and stirring in the required amount of rennet after flavoring has been added.

8. The foods of a liquid diet are served attractively on a correctly set tray.

References:


Notes for preliminary nurses on invalid cookery and service of food.


Activities:

List the foods included in a liquid diet, and the frequency of feeding.

Plan a menu for one day for a patient receiving a liquid diet.

Prepare and serve one meal for a patient receiving a liquid diet.

Carry out the housekeeping duties and report to the dietitian before leaving.

Problem 11. How shall a light diet for one day be prepared and served?
Teaching points:

1. A light diet is prescribed for convalescent patients not yet able to eat a regular or full diet, and for those with minor illnesses.

2. Foods included in a light diet are cooked and tinned fruits; citrus fruits; bananas; well cooked cereals; white or wholemeal bread; tender chops; minced veal, mutton or beef; tripe, brains, sweetbreads and tongue; chicken, rabbit, and fish; soft cooked eggs; milk and milk beverages; cooked vegetables including cabbage, swede turnips and onions; milk puddings; gelatin desserts and beverages included in a liquid diet.

3. The foods included in a light diet are plainly cooked with no fried foods, rich pastries, or pork allowed.

4. Tripe, brains, sweetbreads, tongue and chicken are usually served with a white or parsley sauce either as a savory lunch or tea dish or as the meat for a dinner meal.

5. Because the flavors of the light meats tend to be bland, care must be taken to add the right amount of seasoning.

6. The meal for a light diet is served attractively to the patient with hot foods hot and cold foods cold.

References:


Notes for preliminary nurses on invalid cookery and service of food.

Activities:

List the foods included in a light diet.

Plan a menu for one day for a patient receiving a light diet.

Prepare one meal for this diet and serve it as if to a patient. Decide how the meal measures up to the standards held in this class.

Carry out the housekeeping duties and report to the dietitian before leaving.
Normal Nutrition 10-12 one hour periods
(Offered during second year of training. Prerequisites: Invalid Cookery and Service of Food)

Objectives:

1. To know the importance to nurses of an adequate knowledge of nutrition.
2. To know the value of food nutrition and recognize its characteristics in health.
3. To be interested in and to follow good nutritional practices.
4. To know the nutritional requirements of the body and how these are met.
5. To know the food constituents and their classification, functions and sources.
6. To know the nutritive value of common foods.
7. To know some of the symptoms of nutritional deficiencies.
8. To know the general state of nutrition among New Zealand people.
9. To know the Daily Dietary Pattern for New Zealand.

Normal Nutrition 10-12 one hour class periods plus study time

Problems (lessons)

1. How are nutrition and health related?
2. What are the characteristics of good nutrition?
3. What are the body's food needs?
4. How are the body's food needs met?
5. How are food values expressed?
6. How are food requirements determined?
7. How are foods classified?

8. How shall the Daily Dietary Pattern for New Zealand be used to meet food needs?

9. What is the general state of nutrition in New Zealand?

10. What are the food requirements during growth?

11. What are the food requirements in pregnancy and lactation?

12. What rules shall be followed in menu planning?

Problem 1. How are nutrition and health related?

Teaching points:

1. Good health to a large extent depends on adequate food nutrients supplied throughout life, and good nutritional practices.

2. A healthy person is alert mentally and physically and has a good outlook on life.

3. Good nutrition aids in protecting against infection.

4. The life span may be increased by following good nutritional practices.

5. Growth rates of children are influenced by the type of diet given them.

6. The health of future generations depends greatly on the forming of good food practices in the children of today.

7. Unless good food habits are cultivated at an early age, it may be difficult to change them.

8. Good nutritional practices are important in curing diseased conditions.

References:

Bell. Lecture notes on normal nutrition. pp. 2-8.

Preparation by students for each lesson consists of reading assigned references. During class time students participate in discussion and recitation activities based upon the readings.

Activities:

Decide the importance to nurses of maintaining good health and name ways in which this state of health can be maintained.

Problem 2. What are the characteristics of good nutrition?

Teaching points:

1. A good physique and good posture are the result of good nutritional practices.
2. Both physical and mental alertness are apparent in good nutrition.
3. The individual in good nutrition is the correct weight for his age, height and build.
4. His eyes are bright and alert and his complexion is a good color and is clear.
5. His teeth are strong and white with few dental caries.
6. His nails are pink and smooth.
7. Good muscle tone is evident throughout his body.
8. He has a general sense of well being.
References:


Activities:

List the characteristics of good nutrition and of malnutrition.

Judge the state of nutrition of one or more members of the class.

Problem 3. What are the body's food needs?

Teaching points:

1. The body needs energy for carrying on body processes.

2. Energy is also needed to provide warmth to maintain body temperature.

3. Energy is required for muscular work.

4. The body needs materials for the building and repairing of tissues.

5. Bones and teeth require specific substances for their growth and maintenance.

6. Certain substances are required to stimulate and regulate body functions.

7. Other substances are necessary to help fight infection.

8. The body's food needs should be adjusted to meet the special demands of growth, pregnancy, lactation and illness.

References:


Activities:

Calculate the energy required for a nurse to perform her daily duties.

Problem 4. How are the body's food needs met?

Teaching points:

1. The body's food needs are met by eating daily a diet containing adequate amounts of the food nutrients.

2. Food nutrients supplying the necessary energy to the body are carbohydrates, fats, and protein.

3. Protein is an essential nutrient in the building and repairing of body tissue.

4. The food nutrients necessary to build bones and teeth are minerals, vitamins and protein.

5. Vitamins, cellulose, protein and water stimulate and regulate body functions.

6. Protein and certain vitamins help to fight infection.

7. The body fluids require water, proteins, minerals and vitamins for their production.

8. During growth all food nutrients must be supplied in optimum amounts.

References:

Bell. Lecture notes on normal nutrition. pp. 11-38.


Activities:

View a film that illustrates how the body's food needs are met.

Problem 5. How are food values expressed?

Teaching points:

1. The energy value of foods is expressed in terms of calories.

2. A calorie is the amount of energy required to raise the temperature of one kilogram of water through 1° centigrade.

3. The protein requirements of the body are measured in grams.

4. Mineral requirements and values are measured in grams and milligrams.

5. Vitamin A and D requirements are expressed in International Units.

6. Other vitamin values are expressed in milligrams.

7. Foods may be grouped as rich, fair, and poor sources of food nutrients.

8. These various food values have been determined through experimental, dietary and other studies.

References:

Bell. Lecture notes on normal nutrition. pp. 8, 23, 30, 37, 51, 56, 63, 71, 74, 81.


Activities:

Using food models, show the foods which are rich, fair and poor sources of food nutrients.

Define and illustrate where possible: energy value, calorie, gram, milligram, International Unit.

Problem 6. How are food requirements determined?

Teaching points:

1. Research work over past years has made possible the present day dietary recommendations.

2. Animal and human experiments have helped in the recognition of dietary deficiencies and how these can be overcome.

3. Results of dietary studies and surveys, animal and human feeding experiments and balance studies have greatly increased the knowledge of the body's food requirements.

4. The first standards for human requirements were set up in 1935 by the League of Nations Health Committee based on available research findings.

5. In 1940 the Food and Nutrition Board appointed by the United States National Research Council set up further recommended allowances.

6. Canadian and British standards for human requirements were set up about the same time.

7. The Table of Recommended Dietary Allowances of 1940 was published in 1941 and revised in 1948 and further revised in 1953.

8. The Daily Dietary Pattern for New Zealand was adopted from the revised recommended dietary allowance of 1948 to meet our own conditions.

References:

Bell. Lecture notes on normal nutrition. pp. 7-10.


Activities:

Tabulate the daily nutritional requirements of a boy of 13 years, very active, and at school.

Problem 7. How are foods classified?

Teaching points:

1. Foods may be grouped according to composition: carbohydrate, protein, fat.

2. Foods may also be classified according to function: body builders, body regulators, energy providers.

3. Body building foods are proteins and minerals; the body regulators are vitamins, minerals, cellulose, protein and water; and the energy providers are fats, proteins, and carbohydrates.

4. Foods rich in protein are meat, milk, eggs, cheese, fish, whole grain cereals, and legumes.

5. Foods rich in carbohydrates are sugars, cereals, flour, potatoes, and legumes.

6. Foods rich in fat are butter, cream, fish oils, vegetable fats such as olive oil, peanut, cottonseed, palm and coconut oil.

7. Foods rich in minerals are fresh fruits and vegetables, milk, cheese, eggs, meat, fish, liver, kidney, cereals, legumes and nuts.

8. Foods rich in vitamins are fresh fruits and vegetables, milk, cereals, cheese, eggs, meat, fish, liver, kidney, yeast, and yeast products.

References:

Bell. Lecture notes on normal nutrition. pp. 13, 19, 24, 29, 33, 37, 51, 52, 56, 63, 71, 74, 84.

Activities:

View a film illustrating foods which are rich sources of each of the essential nutrients.

Record the foods eaten for a given day and decide whether they are rich, fair, or poor sources of the essential nutrients.

Problem 8. How shall the Daily Dietary Pattern for New Zealand be used to meet food needs?

Teaching points:

1. The Daily Dietary Pattern for New Zealand is based on the Recommended Daily Allowances.

2. The Daily Dietary Pattern should be used as a guide in menu planning.

3. All foods included in the Daily Dietary Pattern should be eaten every day and in the recommended amounts.

4. Supplying the body daily with all the essential nutrients in the necessary amounts is an important means of obtaining optimum health.

5. Following the Daily Dietary Pattern will help improve the nutritional state of New Zealand people.

6. Allowances are made in the Daily Dietary Pattern for growth, pregnancy, lactation and it can therefore be used for all age groups.

7. By means of lectures, demonstrations, exhibits, the Daily Dietary Pattern can be presented to the public for their education.

References:

Bell. Lecture notes on normal nutrition. pp. 8-11.
Activities:

List the foods eaten for one day and compare with the Daily Dietary Pattern for New Zealand.

Plan a diet for one day for a preschool child based on the Daily Dietary Pattern.

Problem 9. What is the general state of nutrition in New Zealand?

Teaching points:

1. The average New Zealander probably eats too much sugar, cake, and sweets.

2. Meat is frequently included in the diet as often as three times a day.

3. Many children and adults fail to drink the recommended quantities of milk.

4. Puffed and flaked cereals are used to the exclusion of whole grain cereals.

5. Raw fruits and vegetables are eaten in inadequate quantities.

6. Eggs and cheese are often excluded from the diet because of the large quantities of meat consumed.

7. The introduction of 78 per cent extraction flour in 1949 has increased markedly the dietary intake of thiamin.

8. Vitamin C intake is inclined to be low during the winter in institutional diets.

9. The lack of iodine in the soil makes the use of iodized salt very important at all times.

References:


Activities:

Write a dietary history or record of the food habits of a relative or friend.

Compare the food intake with that of the Daily Dietary Pattern to see the adequacy of the diet.

Give the reasons for the importance to the New Zealand people of an adequate intake of iodized salt.

Problem 10. What are the food requirements during growth?

Teaching points:

1. Protein is required in increased amounts for tissue building.

2. The intake of carbohydrates and fats is increased to supply additional energy.

3. Calcium and phosphorus are needed in greater amounts for growth of bone and formation of teeth.

4. The intake of iron is increased to meet added demands for the making of blood.

5. Iodine must be included in the diet in greater amounts to prevent the development of simple goiter.

6. Adequate vitamin D must be supplied in conjunction with calcium and phosphorus for building bones and teeth.

7. All other nutrients must be supplied in sufficient quantities to meet the needs of the body.

8. The amount of increase of food and food constituents in each case depends upon the person and his individual nutritional needs.

Reference:


Activities:

Plan an adequate diet for a child of 3 years. Calculate the protein and calcium content of the diet.

Outline a diet for a girl 14 years old, including the foods in the Daily Diet Pattern.

Problem 11. What are the food requirements in pregnancy and lactation?

Teaching points:

1. Protein requirement is increased both during pregnancy and lactation.

2. Additional iron is required during pregnancy for the manufacture of blood and growth of tissues.

3. Calcium and phosphorus must be supplied to allow for optimum development of the fetus or infant.

4. Iodine requirement is increased during pregnancy to prevent development of simple goiter in the mother and the child.

5. Vitamin D intake is necessary to allow for building bones and teeth, both in pregnancy and lactation.

6. Thiamine and riboflavin intakes are increased to meet the demands of lactation.

7. Additional calories are needed during the second and third trimesters of pregnancy and throughout lactation.

8. All other nutrients must be supplied in sufficient amounts to meet the needs of the body.
References:

Bell. Lecture notes on normal nutrition. pp. 18, 30, 33, 35, 43, 55-57, 69, 81.


Activities:

Plan a diet for a woman in the seventh month of pregnancy.

Modify the diet for pregnancy to meet the needs of lactation.

Problem 12. What rules shall be followed in menu planning?

Teaching points:

1. The Daily Dietary Pattern for New Zealand should be used as a basis in menu planning.

2. Food combinations should be attractive in color, flavor, and texture.

3. The menu should include a variety of foods.

4. For low cost menus some of the less expensive foods included in the Daily Dietary Pattern should be used.

5. Meals should appeal to the appetite.

6. Fresh fruits and vegetables and milk should be included in the daily menu as much as the food money will permit.

7. Menus should be planned for three meals per day only.

8. Family menus should be planned to care for the food needs of all members.

References:

Bell. Lecture notes on normal nutrition. p. 11.


Activities:

Plan a week's diet for a child of 10 years taking lunch to school.

Compare each day's menu with the Daily Dietary Pattern.

Diet in Disease 6-12 one hour classes
(Offered during the second or third year of training.
Prerequisites: Invalid Cookery and Service of Foods, Nutrition)

Objectives:

1. To know the importance of nutrition in disease.

2. To know the common dietary terms and their meaning.

3. To know the types of diets used in hospital wards.

4. To know the modifications of the normal diet for various pathological conditions.

5. To know the dietary treatment used in the most common diseases.

6. To know the characteristics of diets for various abnormal conditions.

7. To plan menus for patients on special diets.

8. To recognize and understand patients' diet sheets and instructions.

9. To help patients understand and accept their diets.
Diet in Disease

Problems (lessons)

1. How shall diets be planned for abnormal conditions?

2. What is the dietary treatment for fevers?

3. What diets are used in the treatment of cardiac conditions?

4. How are anemias treated by diet?

5. What is the dietary treatment for gastritis and peptic ulcers?

6. What is the dietary treatment for diarrhea, constipation, and coeliac disease?

7. What dietary treatment is followed in diseases of the liver and gall bladder?

8. What is the dietary treatment for diabetes?

9. What is the dietary treatment for underweight and overweight?

10. What dietary treatment is used for nephritis?

11. What rules shall be followed in planning and preparing tube feeds?

12. What diets are used for the treatment of food allergies?

Problem 1. How shall diets be planned for abnormal conditions?

Teaching points:

1. The normal diet is the basis on which all special diets are planned.

2. The diet planned should carry out the objectives of the dietary treatment for the condition.

3. Nutritional deficiencies must be avoided by adding vitamin supplements to the diet when necessary.
4. The palatability and appearance of the food is important to the patient.

5. The likes and dislikes of the patient should be ascertained before planning is done.

6. The menu should be as varied as possible to avoid monotony.

7. The diet should be as nearly like what the patient is used to as possible.

8. Diets to be continued at home should be planned to meet the economic situation of the patient.

References:


Diet therapy notes for nurses.


Preparation by students consists of reading the assigned references. During class time students participate in discussion and recitation activities based upon the readings.

Activities:

Make a list of the ways in which the normal diet is modified for abnormal conditions.

Problem 2. What is the dietary treatment for fevers?

Teaching points:

1. Fever is a condition characterized by an elevation of body temperature above normal and is always accompanied by an increase in metabolism.

2. In acute febrile diseases, a liquid diet of 800-1200 calories is given in the early acute stages.
3. The diet in typhoid fever should be high in calories and protein and low in residue.

4. The protein intake of the diet during the acute stages of scarlet fever is reduced because of the complication of acute nephritis which often occurs.

5. During convalescence from scarlet fever a high caloric, high protein diet is given to restore good nutritional status.

6. For chronic febrile conditions, e.g. tuberculosis, a diet moderately high in protein and high enough in calories to regain lost weight.

7. The diet for tuberculosis should include all the foods rich in such minerals and vitamins, as:
   (a) calcium - for calcification of the tuberculous nodes.
   (b) iron - necessary if there has been haemoptysis.
   (c) vitamin D - for the absorption and utilization of calcium.
   (d) B vitamins - for their role in the oxidation of food as a stimulant to the appetite.
   (e) vitamin C - because there is a low level of this substance in the blood.

8. When the protein intake is to be increased, meat, fish, poultry, cheese, and milk should be used freely in the diet for tuberculous patients.

References:


Diet therapy notes for nurses.


Activities:

Plan a fluid diet for a patient with scarlet fever.

Plan a diet for a long term tuberculosis patient.
Problem 3. What diets are used in the treatment of cardiac conditions?

Teaching points:

1. The competency of the heart to do its work can be influenced greatly by diet.

2. The aim of the diet in congestive heart failure is to obtain the maximum amount of rest for the heart.

3. In the acute stage of congestive heart failure, the diet should be liquid or soft as:
   (a) water, fruit juices.
   (b) Karrell diet - consisting of 200 cc of milk at 4 hour intervals.

4. After the acute stage has passed, the diet should be as nutritionally adequate as possible.

5. Small meals are advisable to avoid pressure by the stomach on the heart.

6. Obesity is a predisposing cause of hypertension so that gradual reduction in weight should be encouraged.

7. If cardiac damage has resulted from hypertension, a low sodium diet is indicated.

8. The protein intake in hypertension depends on the renal function.

References:


Diet therapy notes for nurses.


Activities:

View a film on the treatment and dietary care of patients with cardiac conditions.

Plan a low salt or sodium diet containing 1.5 mg. of sodium.
Problem 4. How are anemias treated by diet?

Teaching points:

1. Anemia is defined as any clinical syndrome associated with a deficiency in the quantity or quality of the blood.

2. Nutritional anemias are common during infancy, adolescence and pregnancy.

3. Nutritional anemias may also occur as a result of diseases which interfere with the absorption or utilization of iron.

4. The diet for nutritional anemias must be adequate in all respects with special emphasis on the protein and iron intake.

5. A good supply of protein and iron is also required for the treatment of pernicious anemia for rapid growth of the red cells after vitamin B\textsubscript{12} is administered.

6. Liver should be included in the diet at least once weekly besides lean meat, eggs, wholegrain bread and cereals, and potatoes, which are common and good sources of iron.

7. As the patient's digestion is often impaired, the foods included in the diet should be simple and easily digested.

References:


Diet therapy notes for nurses.


Activities:

Suggest four ways in which liver can be served.

Plan a diet for a patient with nutritional anemia.
Problem 5. What is the dietary treatment for gastritis and peptic ulcer?

Teaching points:

1. A liquid diet is given after gastric lavage and a period of fasting in the treatment of gastritis.

2. In treating gastritis, solid food should be added to the diet very gradually - the first food to be given being crisp dry toast or crackers.

3. A light diet should be given for gastritis where the patient's condition permits.

4. The diet for peptic ulcer should be mechanically, chemically, and thermally non-irritating.

5. Foods that neutralize and inhibit acidity should be included in the diet for peptic ulcer patients.

6. Frequent small feedings should be given in the dietary treatment of peptic ulcer.

7. The diet for peptic ulcer should be gradually but finally restored to an adequate diet.

8. The normal dietary requirements must be met including vitamin C for healing of the ulcer, B vitamins for diet if low in residue, and iron because of likelihood of hemorrhage.

References:


Diet therapy notes for nurses.


Activities:

Several members of the class do case histories of ulcer patients and present these to the class for discussion.
Problem 6. What is the dietary treatment for diarrhea, constipation and coeliac disease?

Teaching points:

1. The dietary treatment for acute diarrhea consists of:
   (a) withholding food and fluids by mouth for the first 24 hours of an acute attack.
   (b) giving a soft diet, later followed by a regular diet.

2. The dietary treatment for ulcerative colitis includes:
   (a) a low residue diet, high in calories.
   (b) a high intake of protein.
   (c) the avoidance of foods high in cellulose.

3. The psychological aspect of feeding patients is important in the treatment of ulcerative colitis.

4. For most cases of constipation the dietary treatment consists of:
   (a) a normal diet containing roughage in the form of fresh fruits and vegetables, and wholegrain bread and cereals.
   (b) supplementing the dietary source of the B complex vitamins with some other source.

5. The dietary treatment for spastic constipation includes a diet of foods with soft residue such as stewed fruit and fruit juices.

6. The new treatment for coeliac disease is to exclude wheat and rye flour from the diet.

7. Even in the early stages of the treatment of coeliac disease, there is no need to restrict carbohydrate or fat, provided wheat flour is excluded.

8. The diet should be nutritionally adequate to prevent nutritional deficiencies.

References:


Diet therapy notes for nurses.

Activities:

Plan a diet for a patient with chronic atonic constipation.

Calculate the amount of thiamine in this diet, and compare with the recommended dietary allowance.

Problem 7. What dietary treatment is followed in diseases of the liver and gall bladder?

Teaching points:

1. In diseases of the liver the following functions are impaired:
   (a) carbohydrate storage.
   (b) fat metabolism.
   (c) serum protein production.
   (d) prothrombin production.

2. For acute infectious hepatitis the dietary treatment is as follows:
   (a) in the acute stage because of pain and nausea, intravenous food and fluid may be given.
   (b) as soon as possible the patient is placed on a high protein, high calorie diet.

3. A high protein, high carbohydrate, and moderate fat intake is advocated after the acute phase of infectious hepatitis has passed.

4. A high protein, high carbohydrate, moderate fat, and high vitamin diet is prescribed for cirrhosis of the liver.

5. Where severe ascites and general edema exist, it may be necessary to limit the fluid and salt intake in cirrhosis of the liver.

6. The dietary treatment for acute cholecystitis is:
   (a) copious fluids because of fever.
   (b) protein - 30 to 40 grams, the amount that is well tolerated.
   (c) carbohydrate intake increased to provide sufficient calories.
   (d) fat excluded as it causes contraction of the gall bladder.

7. The dietary treatment for chronic cholecystitis is:
   (a) reduced calories, as obesity is usually present.
   (b) low to moderate fat intake, depending on the patient’s tolerance.
(c) normal amounts of protein.
(d) carbohydrate intake depending on the presence or extent of obesity.
(e) adequate fluids.
(f) adequate vitamin intake, especially vitamins A, D, and K.

8. For post-operative dietary treatment a low fat diet is continued for some months, and obesity must be guarded against.

References:


Diet therapy notes for nurses.


Activities:

Visit a patient suffering from cirrhosis or infectious hepatitis, and discuss with him his dietary treatment. Report the experience to class.

Plan a low fat diet for a patient with cholecystitis. Calculate the amount of fat.

Problem 8. What is the dietary treatment for diabetes?

Teaching points:

1. The treatment of diabetes is by diet, and if necessary, insulin.
2. The dietary prescription takes into consideration the severity of the disease and the maintenance requirements of the patient.
3. The caloric intake should allow the patient to lose or gain weight when he reaches his ideal or slightly below his ideal body weight.
4. The protein intake should be normal, i.e., 1-1\(\frac{1}{2}\) grams per kilogram of body weight.
5. Carbohydrates are somewhat restricted.

6. Fats are used to make up the balance of the total calories required.

7. The diet must be adequate in all essential nutrients.

8. The distribution of carbohydrate in the daily diet is important and varies with the type of insulin given.

References:


Diet therapy notes for nurses.


Activities:

View a film illustrating the treatment of diabetes.

Outline a list of dietary instructions for a diabetic patient being discharged from the hospital.

Problem 9. What is the dietary treatment for underweight and overweight?

Teaching points:

1. Leanness or underweight may be due to:
   (a) an inadequate intake of calories.
   (b) malignancy, gastrointestinal disorders, chronic infectious diseases, and endocrine disturbances.
   (c) malnutrition.

2. A careful survey of the patient's food habits should be taken to reveal any inadequacies of diet.

3. The caloric intake is increased gradually with an increase in protein to combat loss of body tissue.

4. Adequate intake of minerals and vitamins, especially thiamine, is necessary.
5. In cases of obesity, the caloric intake is cut from one-fourth to one-half, but less than 1,200 calories is unadvisable unless under strict medical supervision.

6. Carbohydrate and fats constitute the greatest sources of calories, so must be considerably reduced.

7. A normal or slightly higher intake of protein is advocated due to its specific dynamic action which stimulates metabolism.

8. The diet should be adequate in minerals and vitamins, and foods included should have a high satiety value.

References:


Diet therapy notes for nurses.


Activities:

Set up an exhibit to show the weight of the following foods necessary to supply 100 calories.

Plan a diet for a homemaker, 5' 4" tall and weighing 168 pounds. List the instructions that should be given her about her diet.

Problem 10. What dietary treatment is used for nephritis?

Teaching points:

1. Nephritis may be of short duration (acute form) or of many years duration (chronic form) and no one type of diet is applicable to all kinds of nephritis.

2. The dietary aim in acute nephritis is to rest the inflamed glomeruli by restricting calories, protein, fat, salt and fluids.

3. Orange juice sweetened with glucose is the only food or fluid given for the first few days.
4. The amount of orange juice given is from 25-40 ounces at regular intervals.

5. Under medical direction the dietary intake for nephritic patients is gradually increased.

6. In sub-acute nephritis without hypertension or nitrogen retention, there may be marked edema with reduced blood albumin and the diet therefore is:
   (a) high in protein - to replace albumin lost in the urine.
   (b) high in carbohydrate - to prevent ketosis and spare protein.
   (c) adequate in minerals and vitamins, especially iron, calcium, and vitamins A, D and C.
   (d) restricted in salt and fluid because of the edema present.

7. In chronic nephritis with no edema or albuminuria, but with hypertension and nitrogen retention, the diet should aim to keep the patient healthy while retarding further sclerosis.

8. The diet for chronic nephritis is:
   (a) adequate in calories unless obesity is present.
   (b) moderate in protein unless an increase in blood urea occurs, when it should be reduced.
   (c) high or low in carbohydrates and fats depending on presence of obesity.
   (d) adequate in minerals and vitamins, especially iron, calcium and vitamin C.
   (e) normal in fluid intake but with some restriction in the use of salt.

9. Salt substitutes which contain potassium should be excluded in diets for nephritis as the kidney may not be able to eliminate potassium.

References:


Diet therapy notes for nurses.


Activities:

Several members of the class report on case histories they have done on patients with nephritis.
Plan a high protein diet for a child of eight years with chronic nephritis.

Problem II. What rules shall be followed in planning and preparing tube feeds?

Teaching points:

1. The tube feed should contain sufficient food and fluid to maintain normal nutrition and ideal body weight.

2. The mixture should be of the correct consistency to pass through the tube and should be slightly warmed.

3. Sufficient calories may be obtained from milk, eggs, glucose and cream.

4. Protein may be obtained from milk, skim milk powder, eggs and protein concentrates.

5. Carbohydrate may be supplied from such foods as milk, glucose, sugar, honey and syrup.

6. Minerals are supplied thus:
   (a) calcium - from milk.
   (b) iron - from eggs.
   (c) iodine and sodium - from iodized salt.

7. Vitamins are supplied thus:
   (a) A - from milk, cream, eggs.
   (b) B complex - from milk, eggs, yeast, etc.
   (c) C - from orange juice or rosehip syrup.
   (d) D - from fish liver oils.

8. Tube feeding may be used for severe anorexia nervosa, gastro and any duodenal feedings when necessary.

References:


Diet therapy notes for nurse.

Activities:

Select any two patients who have just had an operation and note the progression of diets in each instance. (1) the approximate length of time each diet is used; and (2) the factors which require particular emphasis.

Plan a tube feed containing 2,000 calories which contain 120 grams of protein.

Problem 12. What dietary treatment is used for food allergies?

Teaching points:

1. Food allergy may denote unusual sensitiveness to some particular protein or derivative of protein, the food causing the condition varying widely in protein content.

2. Elimination diets are used as a means to determine which food is causing the reaction.

3. When the causative factors have been identified, the following courses are open:
   (a) desensitize the patient gradually to those foods.
   (b) limit the patient to the offending foods.
   (c) use ACTH and cortisone.

4. The patient must be educated as to the cause of his allergy and made to avoid commercial products of doubtful composition.

5. The diet should be adequate in all essential nutrients to prevent the development of nutritional deficiencies.

6. Milk sensitivity in infants may be due to an allergy to lactalbumin or to casein and is often a cause of infantile eczema.

7. If the allergic condition in infants is due to sensitivity to casein, soya bean milk or meat with appropriate additions may be used.

References:


Diet therapy notes for nurses.

Activities:

Plan a day's menu for a child who is allergic to milk and eggs.

Plan a day's menu for a woman who is allergic to wheat flour and potatoes.

Examples of Guide Sheets for Students

Introduction to Nutrition (student nurses)

Problem 1. What is nutrition?

References:

Bell. Lecture notes on normal nutrition. pp. 2-5.


Questions for guidance in study:

1. What is meant by "nutrition"?

2. How can a good nutritional state be recognized in a person?

3. Why should people of all ages follow good nutritional practices?

4. What is the cause of nutritional deficiency?
5. Why should children be encouraged at an early age to develop good food habits?

6. What are essential food habits for everyone?

Nutrition (student nurses)

Problem 4. How are the body's food needs met?

References:

Bell. Lecture notes on normal nutrition. pp. 11-88.


Questions for guidance in study:

1. Make a chart showing the body's food needs and foods that meet each need.

2. What is the value of protein in the diet?

3. Which of the food nutrients supply energy to the body?

4. During what period in life is it essential for the body to have all the food nutrients in optimal amounts?

5. How does the body use the water which is ingested?

6. How did the film illustrate the way in which the body's food needs are met?

Invalid Cookery and Service of Food (student nurses)

Problem 5. How shall milk drinks, sandwiches, and raw fruit be prepared and served?
References:

Notes for preliminary nurses on invalid cookery and service of food.

Questions for guidance in study:
1. List five different ways in which milk can be used as a beverage.
2. How are eggflips prepared and served?
3. What are the procedures followed in making sandwiches?
4. Make a list of nutritive sandwich fillings suitable for young children.
5. What points should be especially noted when selecting fresh fruits?
6. How are the various raw fruits prepared and served?

Diet in Disease (student nurses)

Problem 8. What is the dietary treatment for diabetes?

References:

Diet therapy notes for nurse.
Questions for guidance in study:

1. What is diabetes? What causes the condition?
2. List the predisposing factors in diabetes.
3. What are the objectives of the dietary treatment in diabetes?
4. State the principles of the dietary treatment of diabetes.
5. What is acidosis? How is it treated?
6. List eight rules to observe in the planning of the diet for the diabetic patient.

Examples of Objective Test Questions

INVALID COOKERY AND SERVICE OF FOOD

I. Four of the following ingredients listed are commonly used in the preparation of white sauce.

1. _____eggs_____ 6. _____butter or substitute_____
2. _____milk_____ 7. _____water_____
3. _____cream_____ 8. _____broth_____
4. _____flour_____ 9. _____salt_____
5. _____cornstarch_____  

(a) In the blanks at the right check the four foods commonly used in making white sauce.

(b) In the blanks at the left of each of the four foods checked, write the amounts used in making one cup of medium or number two white sauce.

(c) Name three foods or dishes which have a white sauce as
II. (a) In the blanks at the right of the menu write in the names of the service dishes and silver to use for the corresponding food.

<table>
<thead>
<tr>
<th>MENU</th>
<th>SERVICE DISHES AND SILVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver and bacon</td>
<td></td>
</tr>
<tr>
<td>Tomatoes</td>
<td></td>
</tr>
<tr>
<td>Bread - butter - jam</td>
<td></td>
</tr>
<tr>
<td>Homemade biscuits</td>
<td></td>
</tr>
<tr>
<td>Raw fruit</td>
<td></td>
</tr>
<tr>
<td>Tea</td>
<td></td>
</tr>
</tbody>
</table>

(b) In this rectangular space indicate how to place the foods and silver dishes and accompanying silver.
III. In the right hand column are listed some foods that might be prepared for an evening meal. In the left hand column are some principles of food preparation some of which apply in the preparation of these foods. In the blanks at the left write the number of the food to which the principle applies in its preparation.

1. Heat and moisture cause starch grains to burst the walls of cellulose that inclose them.  
2. Starch swells and thickens liquid in the presence of heat.
3. To prevent lumping of starch grains, fat is used to separate the grains of starch before adding hot liquid.
4. Dry heat 320° F. changes starch to dextrin.
5. Boiling extracts tannin and makes the product bitter.
6. A lumpy product is prevented by separating the starch grains with sugar before the addition of hot water.
7. Albumin does not require a high temperature for coagulation and it is toughened by too high a temperature.
8. A small amount of boiling salted water is used in vegetable cookery to prevent excess losses of mineral and vitamins.

IV. In the blanks at the left check the word or words that make the following statements correct. (In some only one blank is checked; in others more than one are checked.)
(a) One measuring cup equals -
   ____ 16 level tablespoonfuls.
   ____ 6 ounces.
   ____ 12 level tablespoonfuls.

(b) To make good tea, a heated tea pot and freshly boiling water should be used, and the tea allowed to infuse no longer than -
   ____ five minutes.
   ____ ten minutes.
   ____ three minutes.
   ____ one minute.

(c) Toast should be served -
   ____ hot.
   ____ buttered.
   ____ evenly browned.
   ____ crisp, but warm.
   ____ cut across.
   ____ uncut.

(d) Milk to be used in making junket should not be warmed above -
   ____ 212° F.
   ____ 175° F.
   ____ 100° F.
   ____ 50° F.

(e) For baked custard the oven should be set at approximately -
   ____ 375° F.
   ____ 450° F.
   ____ 225° F.
   ____ 275° F.
(f) Vegetables are eaten primarily to provide -
   _____ color and flavor.
   _____ vitamins and calories.
   _____ proteins and minerals.
   _____ alkaline salts.

(g) Water in which vegetables are cooked should never be -
   _____ used in making gravy.
   _____ discarded.
   _____ added to the soup stock.
   _____ none of the above.

References for Courses in Nutrition
and Dietetics for Student Nurses

Bell, Muriel E.

Bogert, L. Jean.


Diet therapy notes for nurses. n.d. n.p.

Geogory, Elizabeth, and Elizabeth C. Wilson.


Kilander, Holger F.
The Courses in Nutrition and Dietetics for Student Dietitians

Needs of student dietitians related to the nutrition and dietetic courses.

1. Understanding the importance of good nutrition in health and disease.

2. Knowing the food requirements for all age groups and how these are met.

3. Knowing the principles of nutrition and especially how these are carried out during pregnancy and lactation.

4. Understanding that an adequate diet is the basis for all therapeutic diets.

5. Knowing how to modify the normal diet to meet various diseased conditions.

6. Applying their knowledge of nutrition and dietetics to their work in the diet kitchen and in the wards.

7. Teaching the patient and his family the fundamentals of good nutrition.

8. Instructing the patient and his family how to use and follow his diet at home.

9. Planning menus for patients on different economic levels.

Guiding principles for the courses in nutrition and dietetics for student dietitians.

1. The nutrition and dietetic courses for student dietitians should be based on the needs of the students relative to nutrition and dietetics.
2. These courses must meet the requirements for instruction in nutrition and dietetics as set up in the Dietitians Regulations under the Dietitians Act.

3. These courses should be based on the nutrition background of the student dietitians.

4. These courses should help the student dietitians to extend their practical and therapeutical knowledge of nutrition and dietetics to others.

5. These courses should help the student dietitians to develop a sound knowledge of nutrition and dietetics and their importance in health and disease.

6. These courses should help the student dietitians to understand their patients better and to be tolerant towards patients' idiosyncrasies.

7. These courses should be revised and changed frequently to keep pace with new trends in the fields of nutrition, dietetics and medicine.

Objectives for the nutrition and dietetic courses for student dietitians.

1. To understand the importance of good nutrition in health and disease.

2. To know the principles of good nutrition for all ages.

3. To know how the normal diet is modified in certain diseased conditions.

4. To apply knowledge of nutrition and dietetics in everyday living.

5. To plan menus for hospital patients and those cared for at home.

6. To teach the patient and his family the principles of the prescribed dietary treatment, and how to carry it out at home.

7. To understand the psychological factors involved in the dietary treatment of various diseased conditions.

8. To teach groups of patients or public groups the important facts about nutrition.
9. To know the medical terms used when referring to diseases treated by diet.

10. To prepare and serve food attractively to patients.

General allocation of the nutrition and dietetic courses for student dietitians.

Normal Nutrition 6-8 one hour periods
Diet Therapy 14-16 one hour periods
Minimum number of hours for total course offerings---16 hours.

Normal Nutrition 6-8 one hour periods

Objectives:

1. To know the importance to dietitians of a sound knowledge of nutrition.

2. To know the characteristics of good nutrition at all age levels.

3. To know the principles of infant feeding.

4. To know the principles of feeding children and adolescents.

5. To modify the normal diet for the needs of old age.

6. To know the principles of feeding followed in obstetrics.

7. To know the nutritional needs of pregnancy and lactation.

8. To develop and follow good food habits.

Normal Nutrition 6-8 one hour periods plus study time

Problems (lessons)
1. How is a state of good nutrition recognized in a person?

2. What important rules shall be followed in infant feeding?

3. What modifications of foods and the food nutrients are necessary during growth?

4. How are the food requirements during old age determined and met?

5. How are the nutritional needs of the body met during pregnancy?

6. How is the normal diet modified during labor and following delivery?

7. What are the special features of an adequate diet for lactation?

8. How may a dietitian help to improve the nutritional status of the New Zealand people?

Normal Nutrition

Problem 1. How is a state of good nutrition recognized in a person?

Teaching points:

1. The person has a general sense of well being.

2. He has a good attitude towards life.

3. He has a good physique and good muscle tone is evident throughout his body.

4. His hair is bright and shiny.

5. His skin is clear and of good color.

6. His eyes are bright and clear.

7. His teeth are white and strong with few dental caries.

8. His nails are pink and smooth.
9. He is alert both mentally and physically and has good posture.

References:

Bogert. Nutrition and Physical fitness. pp. 3-7
Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 3-17, 189.

Student assignments for each lesson include reading and reports. During class time students participate in discussion and recitation activities.

Activities:

Prepare a poster to illustrate the characteristic of a good nutritional state. Make it suitable for use in a nutrition class for young mothers.

Problem 2. What important rules shall be followed in infant feeding?

Teaching points:

1. A mother must have a diet adequate for her needs and sufficient sleep and relaxation especially if she is breast feeding her baby.

2. The protein requirement for most infants is from two to four grams per kilogram of body weight, but three to four grams are necessary for a bottle fed baby.

3. The energy requirement for a young infant is 120 calories per kilogram of body weight in 24 hours.

4. The fluid requirement for young infants is five ounces or 150 cc per kilogram of body weight in 24 hours.
5. The amount of formula required by an artificially fed baby is increased gradually throughout the bottle feeding period to meet the needs of the infant.

6. Vitamin supplements especially vitamins C and D are necessary for both artificially and breast fed babies from an early age.

7. Goat's milk is used sometimes in infant feeding when there is an allergy to cow's milk.

8. The premature baby has a greater requirement for certain nutrients than a full term baby.

References:


Activities:

Calculate a formula for a baby five months old weighing 15 pounds.

Plan a diet for one day for an infant of eight months.
Problem 3. What modifications of foods and the food nutrients are necessary during growth?

Teaching points:

1. During childhood calories must be supplied in adequate quantity in the diet if growth is to proceed normally.

2. Protein needs increase with growth and should be increased along with the calorie intake.

3. Calcium and iron must be supplied in optimal amounts throughout the growing period.

4. When a variety of foods are included in the diet, the vitamin needs are more likely to be met.

5. A high protein diet, including a liberal amount of calories, is required during adolescence.

6. An increased amount of iron in the diet is necessary for girls during adolescence.

7. An adequate intake of iodine is necessary during adolescence to prevent simple goiter.

8. Good food habits should be established during the first year of life and continued throughout the growth period and life.

References:


Activities:

Plan a week's menu for a six year old girl who takes her lunch to school. Calculate the amounts of the essential food nutrients in one day's menu and compare that with the Recommended Dietary Allowances.

Problem 4. How are the food requirements during old age determined and met?

Teaching points:

1. An adequate diet for older persons is an important factor in preventing and retarding senility.

2. The decrease in metabolism and bodily activity in old age reduces the body's need for calories.

3. Protein needs are much the same throughout adult life and many older people suffer from protein malnutrition.

4. The calcium requirements of older people is greater than that of younger adults.

5. The diet during old age should be adequate in all respects.

6. Because the appetite does not always decrease with the lowered caloric needs, obesity should be avoided.

7. Vitamin supplements may be necessary but should be taken only on the advice of a physician or dietitian.
8. The food requirements during old age have been determined by means of animal experiments as well as group and case studies of human beings.

References:

Donahue. Psychological aspects of feeding the aged.
Horwitt. Dietary requirements of the aged. Amer. Dietet.

Activities:

Calculate a diet for a homemaker of 65 years who is 10 pounds overweight and leads an inactive life.

Calculate a diet for a man of 75 years of age who is moderately active and weighs 70 kilograms.

Problem 5. How is the normal diet modified during labor and following delivery?

Teaching points:

1. During the early stages of labor a normal diet is usually given.
2. The protein and fat intakes are reduced during the later stages of labor.
3. Foods allowed during the later stages of labor consist mainly of carbohydrate.
4. The diet during the latter stages of labor may be soft or liquid and includes toast, crackers, tinned or cooked fruits, fruit juices, broth, tea or coffee with sugar but no milk or cream.

5. After delivery a liquid diet is usually given for the first meal.

6. The diet after delivery is gradually increased from liquid to light and then to a normal diet.

7. The normal diet must be adequate in all the food nutrients to allow for the production of sufficient milk by the mother.

8. The diet after delivery or during lactation must include an even greater amount of food than that eaten during the latter part of pregnancy.

Reference:


Activities:

Plan a day's diet for a woman in the first stage of labor.

Give a week's menu for a woman after delivery of her baby.

Problem 6. What are the nutritional needs of the body during pregnancy and how are these met?

Teaching points:

1. There is a definite relationship between the mother's diet during pregnancy and the state of the child at birth.

2. The caloric requirement is increased during the second and third trimesters of pregnancy.

3. The protein intake must be increased because of its contributions to growth, and the recommended allowance is 85 grams daily.

4. Calcium and phosphorus must be supplied in adequate amounts for the needs of both the mother and fetus.
5. An increased intake of iron is necessary during pregnancy.

6. To prevent goiter from occurring, iodine in adequate amounts is important for the pregnant woman.

7. There is an increased need for vitamins during pregnancy.

8. A variety of foods should be included in the diet throughout pregnancy.

References:


Activities:

Plan a day's menu for a woman of average size in the seventh month of pregnancy and calculate the amounts of the essential nutrients.
List the essential nutrients which are required in greater amounts during pregnancy and the results of an inadequate intake of these substances.

Problem 7. What are the special features of an adequate diet for use during lactation?

Teaching points:

1. The nursing mother must have a nutritionally adequate diet to meet the added demands of lactation.

2. A diet which contains 1,000 additional calories above the normal needs is given to a lactating woman.

3. The additional protein requirement may be met by the consumption of greater amounts of the same foods used during pregnancy to supply the protein needs.

4. An increased intake of minerals and vitamins is also necessary during lactation.

5. Vitamin D supplements are usually given on the advice of the physician.

6. Foods should be plainly cooked during lactation and fried foods, foods rich in fat and highly seasoned foods should be avoided.

7. In between meals may be necessary to provide sufficient calories and food nutrients during lactation.

8. At the cessation of breast feeding the mother should return to a normal diet to prevent weight gain.

References:


Activities:

Plan a week's menus for a woman of average size during lactation. Calculate the food value of one day's diet.

Problem 8. How may a dietitian help to improve the nutritional status of the New Zealand people?

Teaching points:

1. A dietitian may help to improve the nutritional status of the New Zealand people by interesting and educating her patients and nurses in the fundamentals of good nutrition.

2. She may give group lectures or informal talks to patients and women's groups.

3. She may set an example to others by following good nutritional practices herself.

4. She may advertise good nutrition by developing all the characteristics of good nutrition herself.

5. She may help to educate the public by presenting displays in conjunction with other groups on the importance of good nutrition.

6. She may show films illustrating good nutritional practices to patients, staff and interested groups.

7. Dietitians working with the Health Department through the preparation of pamphlets for public circulation help to educate the New Zealand people in nutrition.

8. Radio talks which appeal to the public do much to increase the knowledge of nutrition.

References:

Activities:

Plan a radio talk on a nutritional subject which would appeal to the public.

Make a list of the films which could be used for nutritional education of patients, staff and other adult groups.

Collect a folder of pamphlets and posters from the Health Department and other sources which may be used for teaching nutrition to a group of children.
Objectives:

1. To realize that all therapeutic diets are modifications of the normal diet.
2. To know that the body has the same basic food needs as in health.
3. To know the common dietary and medical terms and their meaning.
4. To know the dietary principles involved in nutrition in surgery.
5. To know the dietary treatment used in most diseases.
6. To know the dietary treatment used in complications of pregnancy.
7. To know the symptoms of deficiency diseases and how they are caused.
8. To know the most common children's diseases being treated by dietary means.
9. To teach patients and their families the principles of prescribed dietary treatment and how to carry it out at home.

Problems (lessons)

1. What modifications of the normal diet are made for diseased conditions?
2. How is a good nutritional state maintained before and after surgery?
3. What are the fundamental principles in planning diets for fevers?
4. What diets are used in treating allergies and common skin conditions?
5. How are diseases of the blood treated by diet?
6. What diets are used for complications of pregnancy?
7. How are the most common children's diseases treated by diet?
8. What is the dietary treatment for deficiency diseases?
9. How is diet related to diseases of the liver and gall bladder?
10. What are the principles of dietary treatment for diseases of the gastro-intestinal system?
11. How are diet and diseases of the endocrine system related?
12. What part does dietary treatment play in the circulatory diseases?
13. How are diseases of the genito-urinary system treated by diet?
14. What is the dietary treatment of diseases of the nervous and musculo-skeletal systems?
15. What dietary treatments are followed for obesity and leanness?
16. How may a dietitian help her patients and their families to understand and adjust to their diets?

Problem 1. What modifications of the normal diet are made for diseased conditions?

Teaching points:

1. All therapeutic diets are based on the normal diet.
2. The consistency of the normal diet may be altered as in low residue, liquid or soft diets.
3. Total calories are reduced in diets for obesity and cardiac conditions.
4. The caloric intake may be increased during fevers and convalescence, and for underweight individuals.
5. The intake of one or more of the nutrients may be adjusted to the needs of the patient, as increased protein, decreased fat and decreased sodium.

6. Specific articles of food may have to be omitted due to food allergy as eggs, wheat flour and chocolate.

7. Special dietary treatment is required for most pre- and post-operative patients.

8. In whatever way the normal diet is modified, the new diet must provide the food nutrients in as nearly adequate amounts as possible to prevent nutritional deficiencies.

References:


Class preparation by students includes reading of the references for each lesson. Students also participate during class time.
in discussion, recitation and other activities as directed.

Activities:

Name the conditions for which a high protein diet is given.
Plan a liquid diet which is high in protein.
Write a day's menu for a patient requiring a light diet.
Plan and calculate a regular hospital diet for one day and compare the amounts of food nutrients with the Recommended Daily Allowance.

Problem 2. How is a good nutritional state maintained before and after surgery?

Teaching points:

1. The type of pre-operative dietary treatment depends upon the type of operation, whether minor or major, and the time interval before the operation.

2. Symptoms such as loss of weight, dehydration, edema, and anemia require special dietary treatment before surgery.

3. A pre-operative diet should include large amounts of carbohydrate which protects the liver against damage from anesthesia.

4. Protein is also required pre-operatively in large amounts to combat liver damage.

5. The fluid balance must be maintained both pre-and post-operatively.

6. For certain operative procedures such as surgery of the large intestine, or where the patient is diabetic, special pre-operative dietary treatment is necessary.

7. Post-operatively, protein and calories are especially important, and the maintenance of salt balance is equally necessary.

8. After surgery of the mouth or throat or in certain other conditions, the patient may have to be tube fed.
References:

Barborka. Treatment by diet. pp. 73-84.


Activities:

Plan a gastrectomy feed for a male patient who is underweight.

Do a case history of a patient who is about to undergo surgery with special reference to the pre-operative and post-operative dietary treatment.

Problem 3. What fundamental principles are used in planning diets for fevers?

Teaching points:

1. In acute febrile conditions both the energy and the protein metabolism are increased, causing loss of protein from the body tissues.

2. Body fluids containing minerals and salts are also lost from the body during acute febrile conditions.

3. A liquid diet adjusted to the appetite of the patient is given during the early acute stage of a fever, and as the patient’s condition improves the diet is gradually increased to normal.

4. Because of the symptoms of the condition a low residue, high calorie diet is given during typhoid fever.
5. Dietary treatment for chronic fevers such as tuberculosis includes enough calories to maintain ideal body weight but not enough to cause obesity.

6. The diet for tuberculosis should contain a liberal amount of protein, and foods rich in minerals and vitamins.

7. Because of the psychological involvement of tuberculosis, good food well cooked and attractively served is essential.

8. During convalescence after all fevers, the diet must contain liberal amounts of all the food nutrients, as well as being sufficient in calories to increase body weight to normal.

References:

Activities:
Make a table illustrating the differences in the dietary treatment of (a) a fever of short duration, (b) a fever of long duration, and (c) a chronic febrile condition.

Plan a diet suitable for a patient with typhoid fever.

Plan a high calorie fluid diet for a patient with a fever of short duration.
Problem 4. What are the diets used in the treatment of allergies and the common skin conditions?

Teaching points:

1. Food allergy is due either to the ingestion of, or contact with, certain foods.
2. Elimination diets are used in the treatment of food allergy.
3. Some common foods causing allergic conditions are milk, eggs, cereals, fish, nuts, spices, vegetables, and fruits.
4. Dietary treatment for skin diseases requires an adequate intake of all the essential nutrients, as often it is lack of food which causes the condition.
5. In the treatment of eczema, the use of elimination diets which deprive the patient of necessary food should be avoided.
6. The treatment of acne vulgaris is to give a diet of simple foods of high nutritive value, avoiding fatty foods.
7. Highly seasoned foods, fried foods, rich pastries, and condiments are excluded in the dietary treatment of rosacea.
8. Dietary treatment has so far proved unsuccessful in cases of erythema dermatitis and psoriasis, unless the condition is caused through a nutritional deficiency.

References:


Rowe. Elimination diets and the patient's allergies.

Activities:

Plan a day's menu for a child who is allergic to milk and wheat.

Plan and calculate a diet for an 18 month old baby who is allergic to casein.

Problem 5. How are diseases of the blood treated by dietary means?

Teaching points:

1. Iron deficiency anemia frequently occurs among the following groups of people:
   (a) infants, both full term and premature.
   (b) growing children.
   (c) adolescent girls and young women.
   (d) pregnant women.
   (e) patients after surgery or after hemorrhage.
   (f) women nearing the menopause.

2. Lack of absorption of the iron due to lowered gastric acidity or disease of the intestinal tract also causes iron deficiency anemia.

3. The diet for iron deficiency anemia should include an increased supply of iron and protein to promote blood regeneration.

4. Liver should be included in the diet for iron deficiency anemia at least once a week, and lean meat, eggs, whole grain bread and cereals, as well as potatoes and green leafy vegetables, included often.

5. Pernicious anemia is thought to be caused by lack of the intrinsic factor, and achlorhydria is always a symptom.

6. A good supply of protein and iron is also necessary in the treatment of pernicious anemia to provide building substances for the red cells.

7. Vitamin B₁₂, now thought to be the extrinsic factor, is administered in connection with dietary treatment in pernicious anemia.
8. Because both types of anemia may have a poor appetite as a symptom, all food must be well cooked and attractively served.

References:


Activities:

Plan a diet for an adolescent girl of 15 who has iron deficiency anemia.

Plan a diet for a patient with pernicious anemia; calculate the protein and iron content.

Write a week's menu for a patient with anemia caused by iron deficiency who is of the lower income group.

Problem 6. What diets are used for complications occurring during pregnancy?

Teaching points:

1. Nausea and lack of appetite, which often occur during the first trimester of pregnancy, may be treated by taking a number of small meals throughout the day.
2. A pregnant woman with a tendency towards being overweight should omit foods such as sugar, candy, fried and fatty foods and rich desserts from her diet.

3. In the treatment of toxemia of pregnancy, there is some controversy as to the role of nutrition, but a high protein diet is usually advocated.

4. Intakes of salt and fluid are usually restricted in toxemia.

5. All fried foods and those rich in fats are excluded in toxemia as are those foods with a high sugar content.

6. The diet for toxemia must contain a plentiful supply of minerals and vitamins.

7. Because toxemia often occurs in the last trimester of pregnancy, the diet should be sufficient in bulk to satisfy the appetite.

8. As the blood pressure becomes lower and edema is reduced, salt may be added to a toxemia diet, but in cooking only.

References:

Barborka. Treatment by diet. p. 613.


Activities:

Make out a list of dietary instructions to give a patient on a toxemia diet.

Plan a diet suitable for a patient with severe toxemia of pregnancy.

Plan a suggested week’s menu for a pregnant woman who has become overweight.
Problem 7. How are the most common children's diseases treated by diet?

Teaching points:

1. The principles of nutrition for well children are equally applicable to the sick child when properly adapted to the individual patient.

2. The dietary treatment of acute enteritis consists of withholding food for the first 24-48 hours, and then gradually adding foods such as gruels, milk, strained cereals, beef-tea and toast until a full diet is reached.

3. The rules for treating febrile conditions are followed in the dietary treatment of mumps, scarlet fever, tonsilitis and whooping cough; modifications necessary for each condition are:
   (a) mumps - highly seasoned foods and acids are avoided.
   (b) scarlet fever - a low protein diet is given due to the frequent complication of nephritis.
   (c) tonsilitis - bland foods which are easily swallowed are included.
   (d) whooping cough - the food should be simple, easily digested and given at frequent intervals.

4. The latest treatment for coeliac disease excludes all wheat and rye flour from the diet, which is adequate in all other respects.

5. In the diet for nephritis where an increased intake of protein is necessary, a variety of foods rich in protein should be included and ways adopted for including large quantities of milk.

6. Although the same dietary principles are followed in treating child diabetics, the psychological aspect of the situation should be carefully handled, and the diet must contain adequate foods and nutrients for growth.

7. In diets for children with food allergies, the menu and the foods used should be as varied and as attractive as possible.

8. In treating cases of childhood obesity, care must be taken to provide enough of the essential nutrients to allow for growth.
References:


Activities:

Outline the special dietary treatment necessary for (a) mumps, (b) scarlet fever, (c) tonsilitis, (d) whooping cough.

Plan and calculate a diet for a seven year old child with nephrosis who does not like milk.

Problem 8. What is the dietary treatment for deficiency disease?

Teaching points:

1. A deficiency disease is any pathological or subnormal condition for which some specific food deficiency is wholly or partially responsible.

2. Protein deficiency causes hypoproteinaemia and nutritional edema, the dietary treatment for which is a diet rich in good quality protein and containing sufficient calories.

3. Night blindness and xerophthalmia are caused by insufficient vitamin A in the diet and are treated by administering concentrated sources of this vitamin.

4. Lack of thiamine in the diet causes beriberi, and the dietary treatment is to give a nutritionally adequate
diet rich in thiamine in addition to concentrates of the B complex vitamins.

5. Multiple vitamin therapy in addition to a nutritionally adequate diet is the dietary treatment used for pellagra, which is caused through a deficiency of nicotinic acid.

6. Riboflavin insufficiency is often associated with that of niacin and thiamine in pellagra, and the diet for this condition includes all foods rich in these vitamins, and contains optimum amounts of the other nutrients.

7. Scurvy is caused by insufficient amounts of vitamin C in the diet, and is treated by administering large quantities of this vitamin through food or in a concentrated form.

8. Rickets in children and osteomalacia in adults occur due to lack of calcium, phosphorus and/or vitamin D in the diet and the dietary treatment includes rich sources of these nutrients.

9. Nutritional anemia and simple goiter are due to a lack of iron and iodine respectively, the dietary treatment for each being to include rich sources of the lacking mineral in the diet.

References:


Activities:

Prepare a summary or chart which includes the recognized deficiency diseases, their causes, symptoms and effective treatment.
Plan a suitable diet for a nine months old baby with scurvy.

Problem 9. How is diet related to diseases of the liver and gall bladder?

Teaching points:

1. Liver disease may require certain dietary adjustments because:
   (a) failure of any of its functions may lead to metabolic disturbances.
   (b) lack of bile in the intestinal tract causes poor digestion and absorption of food.
   (c) venous congestion interferes with the activity of the intestinal tract.

2. The aim in the dietary treatment of liver diseases are to protect the liver against stress, and to enable the damaged organ to function as efficiently as possible.

3. The diet for a patient with impaired liver action should:
   (a) be high in calories.
   (b) contain a liberal amount of first class protein, and a high content of carbohydrate.
   (c) contain little fat.
   (d) be supplemented by concentrates of the B complex vitamins, as well as methionine and choline.

4. In the treatment of cirrhosis of the liver some salt restriction may be necessary and an abundance of vitamins given.

5. A diet high in protein and carbohydrate with moderate restriction of fat is given in case of infectious hepatitis.

6. In the treatment of acute cholecystitis, a diet low in fat but containing large amounts of fluid, is given.

7. Post-operatively after the gall bladder has been removed, it is advisable to continue the low fat diet for some months, and obesity is avoided.

8. For chronic cholecystitis, a diet containing moderate amounts of protein and fat is given to prevent stasis of the gall bladder.
References:


Activities:

Plan a low fat high protein diet for a man with cirrhosis of the liver. Calculate the amounts of protein, fat, and vitamin A.

Make a suggested list of dietary instructions which would accompany a low fat diet for chronic cholecystitis.

Problem 10. What are the principles of dietary treatment for diseases of the gastro-intestinal system?

Teaching points:

1. The type of diet planned depends on the particular disease to be treated.

2. Important points in the dietary treatment of many functional gastric disorders are:
   (a) low or soft residue.
   (b) little or no condiments, except small amounts of salt.
   (c) low in acid content.
   (d) simple foods.

3. The dietary treatment for acute and chronic gastritis is to find and remove the cause of the illness, then to treat the patient's condition accordingly.

4. The characteristics of the diet for peptic ulcers are:
   (a) mechanically, chemically, and thermally non-irritating foods.
(b) foods that neutralize and inhibit acidity.
(c) frequent small meals.
(a) adequate in all food nutrients.

5. Rules for the dietary treatment for diarrhea are:
(a) the food must be sufficient in amount.
(b) the food must be adequate in quality and supply all the nutritive essentials.
(c) the palatability and attractiveness of the food must have consideration.
(d) fats should be limited in amount.

6. Principles of dietary treatment for chronic ulcerative colitis are:
(a) a low residue diet, high calories.
(b) abundant protein.
(c) rich sources of vitamins and minerals.
(d) plentiful intake of fluids.

7. The diet prescribed for constipation depends on the type of constipation but should:
(a) be sufficient in amount.
(b) contain rich sources of vitamins and minerals.
(c) contain increased or decreased amounts of roughage, depending on the type of constipation.

8. A low residue diet is used when it is necessary to leave very little residue in the intestinal tract and foods found to give least residue are lean meat, rice, hard cooked eggs, sugars except lactose, and small amounts of fruit juices, tea and coffee.

References:


Activities:

Plan a diet for a peptic ulcer patient who has just had a hemorrhage.

Plan a day's menu for a patient with chronic ulcerative colitis, allowing at least 100 grams of protein.

Problem II. How are diet and diseases of the endocrine system related?

Teaching points:

1. Simple goiter can be prevented by the use of one teaspoon of iodized salt daily.

2. In the treatment of exophthalmic goiter an increase intake of calories and vitamins A, B and C is necessary.

3. Addison's disease is often accompanied by a deficiency of gastric juice so that food should be chosen carefully.

4. A highly nutritious diet is necessary in the treatment of Addison's disease because of the prostration accompanying the condition.
5. The dietary treatment for Addison's disease is to give a diet rich in vitamin C with sodium chloride added to the food in liberal amounts.

6. Spontaneous hypoglycaemia requires for its treatment a diet containing large amounts of protein, small amounts of carbohydrate, and enough fat to bring the caloric value to the maintenance figure.

7. Tetany is a condition associated with disturbances of mineral metabolism and is treated by including in the diet large quantities of calcium rich foods along with the administration of vitamin D.

8. All diets used for the treatment of endocrine disorders should contain all the essential nutrients in adequate amounts.

References:


Activities:

Plan a diet for an underweight man of 54 years of age who has Addison's disease.

List the causes of simple and exophthalmic goiter and state how these conditions may be prevented.
Problem 12. What part does dietary treatment play in the circulatory diseases?

Teaching points:

1. Because of the lessened efficiency of the heart in obesity, this condition should be treated in circulatory diseases.

2. In the dietary treatment of the failing heart, a reduction of the total caloric intake is the first consideration.

3. The diet in cardiac failure should be well balanced, with carbohydrate providing most of the energy.

4. Protein intake is reduced in the diet for cardiac failure, but the vitamin and mineral content is adequate for the body’s needs.

5. Sodium restriction may be necessary in cardiac failure, but the fluid intake is not usually reduced.

6. In acute heart infections, the chief object is to provide adequate nourishment with the least possible exertion by the patient.

7. The low sodium diet and Kempner's rice diet are advocated by some physicians for the treatment of hypertension.

8. Moderation in diet is the best treatment for most cases of hypertension, with reduction of weight when necessary, but all the essential nutrients must be provided.

References:


Activities:

Plan a low salt diet containing 1.5 grams of sodium for a patient with congestive heart failure and edema.

Make a list of dietary suggestions for a patient with hypertension who is being discharged from the hospital.

View a film on the treatment of cardiac conditions.

Problem 13. How are diseases of the genito-urinary system treated by diet?

Teaching points:

1. The intakes of protein and salt are of special importance in all types of nephritis.

2. In the dietary treatment of acute glomerular nephritis, for the first few days orange juice and glucose are the only foods given, with milk being added later.

3. With alleviation of the various symptoms of acute glomerular nephritis, the diet is gradually increased to meet the patient’s needs.

4. Nephrosclerosis requires for its treatment a well balanced diet with sufficient calories to meet the requirements of the body.

5. The dietary treatment of nephrosis consists of feeding a diet high in protein, and low in salt and fluids with special emphasis on the inclusion of base forming foods.
6. Rigid restriction of salt in cases of nephrosclerosis may do more harm than good and therefore a reasonable intake of this substance is allowed.

7. Pyelonephritis is a frequent cause of toxemia of pregnancy and eclampsia, and ketogenic diets are sometimes used in the treatment of this condition.

8. Diets for the treatment of urinary calculi have been found to be ineffective and medical treatment is now given.

References:


Activities:

Plan a diet for a case of acute glomerular nephritis in the first week of treatment.

Plan a high protein, low salt diet for nephritis. Calculate the protein and sodium content of the diet.

Using the above diet, suggest how changes can be made to add variety to the menu.

Problem 14. What is the dietary treatment of diseases of the nervous and musculo-skeletal system?

Teaching points:
1. Many types of neural degeneration have been found to be caused by a nutritional deficiency as:
   (a) neurasthenia - pellagra and early thiamine deficiency.
   (b) neural changes - pernicious anemia and sprue.
   (c) polynuertitis - beriberi, pregnancy and ulcerative colitis.

2. Principles of dietary treatment for neural degenerative conditions are:
   (a) a balanced diet supplying all the essential nutrients in liberal amounts.
   (b) extensive therapeutic treatment because deficiency seldom occurs singly.
   (c) administration of vitamin concentrates.

3. When shock treatment is given in treating schizophrenia, a high calorie diet is of value in alleviating ill effects of insulin shock.

4. Anorexia nervosa must be treated by psychotherapy along with a well balanced diet which contains all the essential nutrients.

5. Acute arthritis and rheumatic fever should be treated by diet in the same way as any other acute illness.

6. Good nutritional practices are of special importance in treating chronic arthritis, as many food fallacies have been built up around this condition.

7. If obesity is present in arthritic patients, weight reduction should be carried out.

8. Gout may produce a condition resembling arthritis, and obesity must be treated if present.

References:


Proudfit and Robinson. Nutrition and diet therapy. pp. 413-422.


Activities:

Make suggestions for dietary treatment of a young woman with anorexia nervosa who refuses to eat.

List the dietary advice which would be given to an obese woman with arthritis.

Problem 15. What dietary treatment is followed for obesity and leanness?

Teaching points:

1. Obesity is a condition of the body in which the weight, because of the excess storage of fat, is above normal.

2. Emotional factors are believed to be the dominating influence in many cases of obesity.

3. The calorie intake must be cut from one-third to one-half in treating cases of obesity, but less than 1200 calories is unadvisable unless under strict medical supervision.

4. A normal or slightly higher intake of protein is advocated due to its specific dynamic action which stimulates metabolism.

5. The diet for obesity should be adequate in minerals and vitamins, the foods included having a high satiety value.

6. Leanness or underweight may be due to:
   (a) an inadequate intake of calories.
   (b) malignancy, gastro-intestinal disorders, chronic infectious diseases, and endocrine disturbances.
   (c) malnutrition.

7. A careful survey of the patient's food habits should be taken to reveal any inadequacies of diet of the underweight person.
8. The caloric intake is increased gradually with an increase in protein to combat loss of body tissue characteristic of leanness.

References:


Activities:

Plan a diet for an obese woman of 5'3" who needs to lose 30 pounds.

Plan an 800 calorie diet for an obese woman who is hospitalized and does not like raw fruit.

Problem 16. How may a dietitian help her patients and their families to understand and adjust to their diets?

Teaching points:

1. The dietitian must gain the confidence of her patients and be understanding and friendly in her dealings with them.

2. She must explain the diets to the patients in terms which they understand.

3. In planning the diet she must take into consideration the financial status of the patient.

4. She may invite the patient to visit the diet kitchen and watch the actual preparation of the diet.

5. She should give the patient a copy of his diet sheet when he enters the hospital, or as soon as he is well enough to have it, so that dietary instruction is given throughout the hospitalization period.

6. Before the patient is discharged from the hospital, the dietitian should have explained carefully to him the diet and its importance to his health and well being.

7. She should arrange to see the members of the patient’s family so that the diet is explained to them also.

8. Dietary follow-ups are of great value in helping the patient adjust to his diet at home.
References:


Activities:

A young married male patient with a peptic ulcer is admitted to the hospital. Outline the series of dietary interviews he would have during the last two weeks in the hospital before being discharged. Make further suggestions for his education relative to his diet.

Examples of Guide Sheets for Students

Nutrition (student dietitians)

Problem 4. How are the food requirements during old age determined and met?

References:


Questions for Guidance in Study:

1. Why is an adequate diet important for older people?

2. What is the difference between the caloric needs of a man 60 years of age and a young man of 25? Why?

3. Why is the protein intake so important in old age?

4. What are some of the problems encountered when feeding the aged?

5. Which minerals are especially important in the diet of persons over 60 years of age?

6. How have the food requirements of old age been determined?

Diet Therapy (student dietitians)

Problem 5. How are diseases of the blood treated by dietary means?

References:


Questions for Guidance in Study:

1. What is meant by anemia?
2. Which groups of people are more prone to suffer from iron deficiency anemia?
3. List some of the causes of iron deficiency anemia.
4. What food nutrients are important in the diet for anemia? Why?
5. What is the cause of pernicious anemia?
6. What treatment is used for pernicious anemia?

Examples of Objective Test Questions

NUTRITION

I. The basis of menu planning is the Daily Dietary Pattern for New Zealand prepared by the Department of Health. The recommended foods in this are listed in Column A. (a) In column B for each of the foods write the quantity recommended for daily intake for an adult. (b) In column D write in the numbers of the foods from Column A which are the outstanding sources of each nutrient.
II. Mr. Brown, a patient with rheumatoid arthritis, will not eat tomatoes because he says, "This food is too acid." (a) Is this statement true or false? (b) In the blanks at the left check the statement below which proves or disproves Mr. Brown's statement that tomatoes are too acid.

1. Tomatoes belong in one of the food groups in the Daily Dietary Pattern.

2. Tomatoes are an alkaline ash food.

3. The acid in the tomato is neutralized in the stomach.

4. The organic acid in tomatoes is a weak acid.

5. The PH of the blood should be on the acid side.

6. Eating tomatoes aggravates the symptoms of rheumatic condition because they are acid.

(c) In the blanks at the left check the essential nutrients
that will be greatly reduced in Mr. Brown's diet if a good substitution is not made for the tomatoes.

1. Vitamin A  4. Niacin
2. Thiamine  5. Ascorbic Acid
3. Riboflavin

(d) Mr. Brown is firm in his refusal to eat what he calls "acid foods". In the blanks at the left cheek the food groups that he should emphasize in his daily diet to protect him from the deficiency which is likely to occur.

1. Milk or milk products
2. Meat and alternatives
3. Butter and fats
4. Whole grain cereals
5. Ready-to-eat cereals
6. Potatoes
7. Eggs
8. Raw vegetables
9. Other fruits

III. The menu below has been planned for adult patients receiving a regular or full hospital diet. Following this is a list of the recommended foods of the Daily Dietary Pattern for New Zealand and a list of essential food nutrients.

(1) Menu:
(2) Recommended foods of the Daily Dietary Pattern for New Zealand.

1. Milk and milk equivalents
2. Green vegetables
3. Green leafy vegetables
4. Legumes
5. Potatoes
6. Citrus fruits
7. Dried fruits
8. Other fruits and vegetables
9. Eggs
10. Lean meats
11. Whole grain cereals
12. Ready-to-eat cereals
13. Fats
14. Sugars and sweets
15. Additional foods
(3) Essential food nutrients (other than calories)
1. Animal protein
2. Cereal protein
3. Calcium
4. Iron
5. Vitamin A
6. Thiamine
7. Riboflavin
8. Nicin
9. Ascorbic acid
10. Vitamin D

(a) In the blanks at the left of the underlined foods in the above menu (1) write the number or numbers of the food group or groups in the Recommended foods of the Daily Dietary Pattern for New Zealand (2) to which each food belongs. Some of the foods should have more than one number.

(b) In the blanks at the left of the food groups in the Recommended foods of the Daily Dietary Pattern for New Zealand (2) write the numbers of the appropriate food nutrients from the Essential food nutrients (3).

(c) Assuming that standard portions of this menu (1) are served, check in the appropriate blank the phrase which best completes the following statement.

"The diet as indicated by the menu (1) above is ______
1. adequate in all essential nutrients according to the Daily Dietary Pattern for New Zealand."

______2. inadequate to provide all the food nutrients essential for good nutrition."

______3. adequate in some of the essential nutrients and inadequate in others."
(d) Mr. Jones refused to eat the cabbage and the potato in the meal. Which of the essential nutrients may then be lacking in his diet?

Mrs. Green refused to eat the poached egg, the mutton and the ham, but wanted larger servings of the other foods. In what food nutrients is her diet likely to be lacking?

IV. Some of the foods in the following list are rich sources of calories because their chief constituent provides nine calories per gram. In the blanks at the left check the foods that are of this type.

- Bananas
- Butter
- Cream
- Orange juice

- Mineral oil
- Golden syrup
- Oatmeal
- Lard

- Pineapple juice
- Potatoes
- Bacon
- Ice cream

V. (a) The calories provided by a diet that contains amounts of protein, fat, carbohydrate is as follows: Calculate the number of calories for each and in the blanks at the right, write in the appropriate number.

CALCULATION: 75 grams protein equals ________ calories.
120 grams fat equals ________ calories.
300 grams carbohydrate equals ________ calories.

TOTAL ________ calories.
(b) In the blanks at the left check the words that complete the following statement correctly. "For a woman patient of 25 years of age, in bed, this would be a -

1. low calorie intake."
2. normal calorie intake."
3. high calorie intake."

VI. A patient is receiving a diet consisting solely of milk. In the blanks at the left check the following list of nutritive essentials which will not be adequate for good nutrition in such a diet.

Ascorbic acid
Calcium
Thiamine

Calories
Niacin
Riboflavin

Iron
Vitamin A
Roughage

VII. In Column B write in the blanks the number or numbers of the organs and tissues as given in Column A in which the given carbohydrate is found.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Liver</td>
<td>1. Glucose</td>
</tr>
<tr>
<td>2. Muscle</td>
<td>2. Glycogen</td>
</tr>
<tr>
<td>5. Brain</td>
<td></td>
</tr>
<tr>
<td>6. Nerve Tissue</td>
<td></td>
</tr>
</tbody>
</table>
(b) In the blanks at the left check the foods which contain protein of high biological value.

___ Peas  ___ Eggs  ___ Oranges
___ Liver  ___ Beef  ___ Pork
___ Cheese  ___ Milk  ___ Rice
___ Green beans  ___ Mushrooms  ___ Carrots
___ Dried skim milk  ___ Oatmeal  ___ Cabbage
___ Lettuce  ___ Beans  ___ Wholemeal bread

(c) In the blanks at the left check the food which is the most inexpensive source of energy.

___ 1. Butter
___ 2. Kornies
___ 3. Cheese
___ 4. Oatmeal
___ 5. Sausage
REFERENCES FOR NORMAL NUTRITION


Baumgardner, Leona.


Bay, May S.


Bogert, L. Jean.


Bulman, Grace.


Chaney, Margaret S.


Donahue, Wilma T.


Everote, Warren F.


Haberman, Frederick W.


Hiller, Eugene A.

Horwitt, M. K.

Jeans, P. C., M. B. Smith and G. Stearns.

Jefferson, Dorothy L.

Kedneigh, John C.

McLester, James S., and William J. Darby.

Murphy, Gladys H., and Anne W. Werty.

Myers, Madge.

Proudfit, Fairfax T., and Corinne H. Robinson.

Richmond, Julius B., and George H. Pollock.

Ritchie, Jean.

Robinovitch, R. D., and Joseph Fischloff.

Scrimshaw, Nevin S.

Stuart, Harold C.
Sure, Barnett.  
Vitamin B
c in reproduction and lactation.  Amer. Dietet.  

Wagner, Muriel G.  
Appetites and attitudes - a viewpoint on feeding the young  
1954.

Weng, Loraine.  
A study of lay publications on child feeding.  Amer.  

Whitehead, Floy E.  

Youmans, John B.  

Ziegler, Mildred R.  
Mineral enriched meats for diets of infants requiring a  
July, 1953.
REFERENCES FOR DIET THERAPY

Aldersberg, David, and Dorie Robinowesty.

Babcock, Charlotte G.

Barborka, Clifford J.

Bayles, Spencer, And Franklin G. Ebaugh.

Bethell, Frank H.

Boles, R. S.


Chaney, Margaret S.
Cheney, C.

Coburn, Alvin F.

Committee on Diabetic Diets.

Cooper, Lenna F., Edith M. Barber, Helen S. Mitchell and Henderika S. Rynbergen.

Darling, C. D.; and John Summerskill.

Duncan, Garfield G.

Emigh, O. Spurgeon.

Caldston, Idago.

Geiger, E.

Getz, Horace R.

Gofman, John W., Arthur Tomplin and Beverly Strisower.


Hughes, R. Alberta.

Keeton, Robert W.


Leverton, Ruth M., and Mary J. Gram.

Mann, George V.

McLester, J. S., and William J. Darby.

Miller, C. E.

Munves, Elizabeth D.

Phelps, Winthrop M.

Proudfit, Fairfax T., and Corinne J. Robinson.

Rhoads, Jonathan E.

Rowe, A. H.
Turner, Dorothea.

Van Itallie, Theodore B., and Frederick J. Stare.

Victor, Sister Mary.

Wakerlin, G. E.

Wallace, Mildred V.

White, Grace.

Wilcox, Ethelwyn B., and Leona S. Galloway.

Wohl, Michael C.

Young, Charlotte M.

SUMMARY

One of the most important and often difficult responsibilities of the dietitian is the teaching of nutrition and dietetics to student nurses and dietitians. It was to help her in this major responsibility and to use effective means in her teaching that these guides were prepared. Although not expected to be adopted by tutor dietitians in all New Zealand hospitals, the guides do suggest a method of selection and organization of subject matter which is developed to the stage of the lessons. In addition specific references for students are given for each lesson to help them in their reading preparation for the class periods. Likewise, suggested student activities are listed that help to make possible class participation as well as class preparation so that the students may have a variety of learning experiences. Obviously the guides will not fit every situation and will have to be modified by each dietitian to meet her particular needs and those of her students. However, they cover the basic subject matter as required in the training and education of student nurses and dietitians, and offer new ideas in the presentation and organization of the courses in nutrition and dietetics for these groups. The investigator has experienced some of the difficulties facing young dietitians in teaching nutrition and dietetics to student nurses. Her desire is that these guides will be of value to tutor dietitians and especially to the
young and inexperienced dietitians who are beginning their work in the dietetic profession in New Zealand hospitals.
ACKNOWLEDGMENT

Appreciation is expressed to Mrs. Lucile Osborn Rust, Professor of Home Economics Education and Mrs. Bessie Brooks West, Professor and Head of the Department of Institutional Management for their interest and guidance in the preparation of this thesis; and to Dr. Helen Clark, Assistant Professor of Foods and Nutrition, and the others who so kindly checked the teaching guides.
LITERATURE CITED

American Dietetic Association.

American Dietetic Association.

American Dietetic Association.

Bell, Muriel E.


Proudfit, Fairfax T., and Corinne H. Robinson.

Rynbergen, Henderika J.
DETAILED TEACHING GUIDES FOR COURSES IN NUTRITION AND DIETETICS FOR STUDENT NURSES AND DIETITIANS IN NEW ZEALAND HOSPITALS

by

GRACE ISABEL SMITH

Diploma in Home Science
University of Otago, New Zealand, 1948

AN ABSTRACT OF A THESIS

submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE

Department of Institutional Management

KANSAS STATE COLLEGE
OF AGRICULTURE AND APPLIED SCIENCE

1954
INTRODUCTION

Instruction in nutrition and dietetics is a part of the nursing training and education in New Zealand and also of that given student dietitians in their hospital training and education following graduation from the School of Home Science at the University of Otago. Dietitians are mainly responsible for teaching the courses in nutrition and dietetics to student nurses though in some instances this is done by tutor sisters. The courses for the student dietitians are usually taught by a member of the hospital medical staff and the tutor dietitian.

There is need for improving the nutrition and dietetic courses taught to student nurses and dietitians in New Zealand hospitals and also for help in doing this. The purpose of this study was to prepare detailed teaching guides which would aid in the improvement of these courses and also increase their importance in the curriculums of which they are a part.

METHOD OF PROCEDURE

Data relative to the training of nurses and dietitians in New Zealand were obtained from the School of Home Science of the University of Otago, the New Zealand Department of Health, hospitals approved for the training of nurses and dietitians, and certain Acts of the New Zealand Parliament pertaining to the training and registering of nurses and dietitians. All
were reviewed and summarized in relation to the nutrition and dietetic part of the hospital curriculums for student nurses and dietitians. On the basis of these data and the personal knowledge and experience of the investigator, detailed teaching guides were developed for the nutrition and dietetic courses taught to student nurses and dietitians in New Zealand hospitals. When completed these were submitted for checking and suggestions to one member of each of the Departments of Education, Institutional Management, and Foods and Nutrition of Kansas State College and two former dietitians. The guides were then reworked and put in final form.

SUMMARY

The teaching guides of this study are what often would be regarded as a course of study. However, these were carried much further in their development than is usually done with courses of study. Though the general organization of the guides followed that of the courses for which these were prepared, each guide was set up in relation to the daily lessons. The titles of these were all stated as problems and so designated in the guides. For each problem the following were determined: teaching points or basic subject matter, references for students, and suggestions for student activities. Teaching points were expressed in the statement form, and with few exceptions page numbers were given for each reference. The guides were prepared specifically to aid teachers in developing and teaching
the courses and not for student use. However, the guides do provide a basis and a source of materials for preparing guide sheets to aid students in mastering the problems and courses, and tests to evaluate student progress. A number of examples of student guide sheets and objective test questions were formulated and included in the teaching guides.

The Courses for which the Teaching Guides Were Prepared

**Nutrition and Dietetics for Nurses** -

- **Introduction to Nutrition** 4-6 one hour periods
- **Invalid Cookery and Service of Food** 8-10 one hour periods

(Both courses are offered during the first six weeks of the first year of training.)

- **Nutrition** 10-12 one hour periods
  (Offered during the second year of training.)
- **Diet in Disease** 6-12 one hour periods
  (Offered during the second or third year of training.)

**Nutrition and Dietetics for Student Dietitians** -

- **Normal Nutrition** 6-8 one hour periods
- **Diet Therapy** 14-16 one hour periods