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

by

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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

education.

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 teeching with that of the doctors and tutor[1] sisters. Likewise the medicel end nursing staff members need to be informed of the nutrition and dietetic part and its relation to the total curriculum.

Todey there is a trend in teaching which definitely influences the leerning experiences of the student nurse. With the new ideas concerning selection, organization and arrangement of subject matter the emphasis is placed on the patient end his needs rather than on theoretical or "book" knowledge in one particular aspect, area or field. Treining hospitals for nurses or schools of nursing are plenning the curriculums in relation to the verious 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 standerds of nursing and dietetic cere. 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

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[1]Registered nurses who are in charge of a hospital werd are called sisters and those who teach student nurses, tutor sisters.

courses and methods of instruction should be reviewed at least annually to aesure "up-to-dateness". Knowledge of eubject matter alone ie not sufficient for the dietitian. She must present this knowledge in a way that makee for maximum learning by the studente and above all with enthusiasm. A lively interest in her students and an enthusiaem for teaching are essential prerequieitee. When inetruction in dietetics ie accompanied with enthueiasm, the dietitian will not lack response from etudents, be they student nurses or dietitiane.

There ie need for improving the nutrition and dietetio coureee taught to student nurses and dietitians in New Zealand hospitale and aleo for help in doing this. One way of providing such help ie through the preparation of teaching guides for those responsible for teaching nutrition and dietetio oouree to these two groups of etudents. The purpose of this etudy wae to prepare detailed teaching guidee for teachere of nutrition and dietetio coursee for student nursee and dietitians in New Zealand hospitale that would aid in the improvement of these oourees and increase their importance in the ourrioulums of which they are a part.

REVIEW OF LITERATURE

A review of literature revealed that no etudy of thie type had been made in New Zealand, and as far ae wae 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 end dietetics to student nurses. However, none were found that dealt with the teaching of nutrition and dietetics to student dietitiene during their hospital or intern year of training.

Bell (1950) in conjunction with the New Zealand Department of Health, prepered a bulletin "Lecture Notes on Normal Nutrition" which has been used eince thet time ae a text for etudent nursee in the nutrition courees. This bulletin is used throughout all New Zeelend training hospitale for nurses and elthough mainly a source of subject metter for these etudente, their instructors, tutor eistere or dietitians, use it ae a guide for teaching. It contains subject matter only and no euggested guides for teeching are included. The author prepered this bulletin mainly with the idee of anticipating questions that may be asked by etudent nursee and with the hope of stimulating intereet in what had been a rather neglected eubject in their training.

The Americen Dietetic Aesociation (1933) publiehed in bulletin form the minimum requirements for the food and nutrition part of the nursing curriculum in approved hospitals in the United States. Thie bulletin was based on euggeetions received from many dietitians, and representetive hoepitals and schoole of nursing in the United Stetee and Canada in reeponse to a questionnaire submitted to the membere of the Association. In 1938 the recommended requiremente for this same part of the nureing curriculum were publiehed in similar form by this Association. These requiremente were eomewhat higher then 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 comparieon was made with such education and training in the United States. On the basie 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 courees. 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 Kansae 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-eix hospitale are designated in New Zealand as training echools for nurees 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 yeare, but many of the nurses before commencing their training have been employed in wage earning occupations and tend to be

oldsr than the girls coming dirsct from the secondary schools. In most hospitals two years of secondary education is advocated as a prsrequisite 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 includss subjscts 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. Lecturss are also given these students by doctors from the hospital staff. Instruction in nutrition and dietetics in the largsr hospitals is givsn by a dietitian but in the smaller hospitals this responsibility falls on ths tutor sister.

Each training school may have a different organization for its teaching program. In some hospitals the block systsm is favored. In this type of organization the student nurses spsnd ssveral months in addition to the first six wseks 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 classss 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. Ths two coursee in-

cluded at thie time are Invalid Cookery and Service of Food, and Introduction to Nutrition which ie a very brief couree in nutrition. The total minimum time allotted for theec coureee ie ten clock houre. Toward the end of the eix week period the etudent nurees are assigned to the warde in the afternoone eo they may have some experience in ward routine.

During the eecond year of training the couree, Normal Nutrition is offered for which the minimum time allotment ie ten clock hours. Very little out-of-class etudy is expected of etudent nurses in this course. At the end of the eecond year or during the third year clasees are conducted for the course in Diet in Diseaee. The minimum time allotted for thie course is eix clock hours. In addition to thie each etudent nurse ie required to spend 96 clock hours in practical work on diet therapy in the epecial diet kitchen or in a ward kitchen.

Hospital and state examinations are held twice each year for student nurses, the hospital one six weeke prior to that of the state. Unleee a student paeses the hoepital examination, ehe is not eligible to take the state examination and must wait for the next examination which will occur in six monthe. A two hour paper including queetione of both nutrition and diet therapy forme part of both these examinations.

Post graduate work ie available for regietered nureee in a number of fields. At thie level, instruction in nutrition and diet therapy may be given by well qualified epecialiete 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 dietition 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 stete examination for dietitians are set by persons chosen from a panel of examiners appointed by the Dietitians Board of the New Zealand Dietetic

Aesociation. After the completion of the hospital training period and the passing of the state examination for dietitiane, the student dietitian ia promoted to the rank of staff dietitian and ie expected to stay on in her training hospital until she has completed a total of two yeare eervice here. Lika the student nursea, student dietitiane during their hospital training receive a aalary in addition to maintenance and certain professional clothing.

A registered nurse may also becoma a dietitian by studying two years at the School of Home Science. Here she takes ccurses in chemistry, phyeiology, foods, nutrition and dietetice, and inetitutional management. While enrolled at the University she epends vacation time in the Dunedin hospital as a etudent dietition and also additional time until she has served a total of ten months in thia capacity. She ia then eligible to take the etate examination for dietitiane, after which ehe ie qualified to be a staff dietitian. Cnly the Dunedin hospital provides training for nurses preparing to be dietitiana. During the past five years there has been an average of eleven dietitiane trained each year in all four of the hospitals.

The training and education of atudent nurees and dietitians follow very similar patterna in both New Zealand and the United Statee. The profeesional prerequieite couraes required for atudent nursea are approximately the same in the two countries. For atudent diatitiane the requirad academic education ie done in a School of Home Science or Home Economice 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 lsast three or four years of university training at ths 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 courss in nutrition and ons in dist thsrapy. Both are advancsd courses and are related to the professional work of their intsrnship.

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

3. The curriculum in nutrition and dietetics is requirsd 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 coursss.

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

5. A bulletin, "Lecture Notss for Normal Nutrition" has been published by the Dspartment of Health and is used in all New Zealand hospitals training student nursee; however, no planned teaching guidss or course of etudy has sver bssn made available.

6. Only since 1953 has there bsen 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 inexperiencsd, and have had very little training in methods of teaching student nursee.

8. Because there may bs little differencs in the age of young dietitians, student distitians and etudent nurses, maintaining discipline may frsquently be a problem.

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

10. Due to the sizs of the classes, as for example 50 to 60 in normal nutrition, and to the ehort 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 sudent 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.

Introduction to Nutrition 4-6 one hour periods

Invalid Cookery and Service of Food 8-10 two 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.)

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 proceee that is the sum of the breaking down and building up procesees which go on in the body.

3. The food nutrients are protein, fats, carbohydrates, minerale, vitamine, water and cellulose.

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

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

6. The phyeical characteristics of good nutrition are a clear skin, bright eyes, ehiny hair, alert appearance, good posture, good teeth, and strong muecles.

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 deficienciee.

References:

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

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and dieease. pp. 3-14.

Gregory and Wilson. Good nutrition. pp. 5-31.

Kilander. Nutrition for health. pp. 3-6, 7-8.

Proudfit and Robinson. Nutrition and diet therapy. pp. 3-5.

Preparation by studente for each leeson includee reading of lieted referencee. During clase time studente participate in discuesion and recitation. The activities are based upon the readinge.

Activitiee:

Name the characterietice of good nutrition and illustrate by indicating members of the claee who ehow evidence of good nutrition.

Problem 2. Why should nurses learn about nutrition?

Teaching points:

1. Every pereon should have eome knowledge of nutrition and nurses need more than the average person.
2. Nutritional therapy is widely ueed in the treatment of dieease.
3. Many dieeases formerly of unknown causee are now curable by nutritional therapy.
4. Poor nutritional practicee may be the cauee of nutritional deficiencies and may contribute to various kinds of illnese.
5. Nutritional deficiencies may be caueed by varioue illnesees.
6. A sound knowledge of nutrition ie necessary before the role of diet in disease can be underetood.
7. Nursee need to know the true and the false in nutrition that they may answer correctly patients' queetions.
8. A nuree should be prepared to teach her patients the fundamentals of good nutrition.

References:

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

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 14-17.

Gregory and Wilson. Good nutrition. pp. 5-6.

Kilander. Nutrition for health. p. 6.

Proudfit and Robinson. Nutrition and diet therapy. pp. 5-6.

Activities:

Diecuse the meaning of nutritional deficiencies and illustrate each by picturee that show the eigns and eymptoms of the varioue deficiency etatee in a person.

Make a list of the illnesses which may be caueed by poor nutritional practices, indicating the cause or causee of each.

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

Teaching pointe:

1. Foode may be grouped according to function: body buildere, energy providers, body regulators.
2. Foode are also grouped according to composition: protein, carbohydrates, fat, vitamine and minerale.
3. The food nutriente are classified ae follows: protein, fats, minerals, vitamine, water and celluloee.
4. Proteins are body building eubstancee.
5. Carbohydrates and fats eupply the body with energy for heat and work.
6. Minerale are body building substances but are also body regulators.
7. Vitamine stimulate and regulate body functions.
8. Water and cellulose are body regulatore.

References:

Bogert. Nutrition and physical fitness. pp. 7-9.

Gregory and Wilson. Good nutrition. pp. 7-31.

Kilander. Nutrition for health. pp. 11-14.

Proudfit and Robineon. Nutrition and diet therapy. pp. 6-7.

Activities:

Arrange food modele according to the main food groups.

View a film explaining the functions in the body of the eeeential food nutrients.

Problem 4. How is nutrition related to preparing and serving food?

Teaching points:

1. The nutritive value of foode ie decreased by incorrect preparation and eervice.
2. Protein becomee toughened and indigeetible when overcooked.
3. Starchy foods must be well cooked to be properly digested.
4. Fried foods muet be cooked at the correct temperature and well drained to prevent poor digeetion.
5. Minerals and vitamins in vegetables dissolve in the cooking water which should not be diecarded.
6. Fruits end vegetablee should be prepared just in time for serving.
7. Correct cooking methods used with vegetables and fruits cauee retention of vitamins, eepecially vitamin C.
8. Foode kept hot for long periode of time loee their nutritive velue.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and dieease. pp. 419-424.

Hoepital diet manual.

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

Activities:

Name the ways in which much of the nutritive velue of vegetablee may be loet through preparation and service.

Show how each of these ways could be modified or changed eo 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 illnesses.

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. Cupe 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 ueed 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 ie desired.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. p. 421.

Notee for preliminary nursee on invalid cookery and service of food.

Proudfit and Robinson. Nutrition and diet therapy. pp. 499-501.

Activities:

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

Invalid Cookery and Service of Food 8-10 one hour periode
(Offered during the first eix 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 drinks, sandwiches 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 routines and procadures 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 monitresses will be assigned at each lesson to carry out the housekeeping duties.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 419-425.

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

Proudfit and Robinson. Nutrition and diet therapy. p. 501.

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, silverware 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 and disease. pp. 432-438, 577.

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

Proudfit and Robinson. Nutrition and diet therapy. pp. 504-505, 507, 582.

Activities:

Prepare and serve the aseigned 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.

Liet the important factors in tray service.

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

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

Teaching points:

1. Tea ie 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 pereon and allowing to stand 3-5 minutee before serving.

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

3. Stewed fruit ie 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 ie 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 ie served either in a cup or in an individual teapot which must be piping hot.

6. Toast is served in fingere 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 emall coupé diehee.

8. Poached egg ie usually eerved on buttered toaet, placed on a eavory plate, garnished with pareley and alwaye eerved hot.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and dieease. pp. 429-430, 435, 574-576, 475, 478-483.

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

Proudfit and Robinson. Nutrition and diet therapy. pp. 516-519, 536-541, 615, 622-623.

Activities:

Prepare and eerve the assigned foode and bring to the dietitian for judging.

Judge the foods prepared by self and one other etudent and compare with the ratinge 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 cupboarde.

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

Teaching pointe:

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

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

3. Overcooking or overstirring ecrambled eggs ehould be avoided ae they will become watery and unpalatable.

4. Baked fruit ie 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 coupé dish.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 426-429, 474, 478-484.

Proudfit and Robinson. Nutrition and diet therapy. pp. 506-507, 583, 584, 616, 593, 621.

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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 430-432, 435-438, 468-474, 576-579.

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

Proudfit and Robinson. Nutrition and diet therapy. pp. 505-506, 584-587, 619-620.

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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 562-567, 483, 488-490.

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

Proudfit and Robinson. Nutrition and diet therapy. pp. 528-530, 604-606, 616-617, 650-655.

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 cuetard be prepared and eerved?

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 cuetard 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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and dieease. pp. 487-489, 526-535, 536-549.

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

Proudfit and Robinson. Nutrition and diet therapy. pp. 531-535, 559-560, 602-603, 633-634, 654-658.

Activities:

Prepare the assigned foode 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 8. 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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 485-493, 497-502, 550-559.

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

Proudfit and Robinson. Nutrition and diet therapy. pp. 542-545, 549-550, 599-601, 609, 636-643.

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 stripe 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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 503-532, 536-549.

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

Proudfit and Robinson. Nutrition and diet therapy. pp. 552-561, 627-629, 654-658.

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 flips, 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:

Cooper, Berber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 233-237.

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

Proudfit and Robinson. Nutrition and diet therapy. pp. 244-247.

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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 236-237.

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 characteristice 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 claseification, 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.

Bogert. Nutrition and physical fitness. pp. 3-7.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 3-17.

Gregory and Wilson. Good nutrition. pp. 5-6

Kilander. Nutrition for health. pp. 15-18.

Proudfit and Robinson. Nutrition and diet therapy. pp. 3-8.

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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 184-189.

Kilander. Nutrition for health. pp. 15-18.

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:

Bell. Lecture notes on normal nutrition. pp. 19, 28-29.

Bogart. Nutrition and physical fitness. pp. 7-9.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and diseaee. pp. 184-199.

Kilander. Nutrition for health. pp. 10-14.

Activities:

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

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

Teaching points:

1. The body'e food needs are met by eating daily a diet containing adequate amounts of the food nutrients.
2. Food nutrients eupplying the necessary energy to the body are carbohydratee, fats, and protein.
3. Protein is an eseential nutrient in the building and repairing of body tiesuee.
4. The food nutrients necessary to build bones and teeth are minerale, vitamine and protein.
5. Vitamins, cellulose, protein and water etimulate and regulate body functions.
6. Protein and certain vitamine help to fight infection.
7. The body fluids rsquire water, proteins, minerals and vitamine for their production.
8. During growth all food nutrients must be supplied in optimum amounts.

References:

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

Bogert. Nutrition and phyeical fitness. pp. 6-28, 110-128.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and diseaee. pp. 19-107.

Kilander. Nutrition for health. pp. 15-18.

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.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 128-129.

Gregory and Wilson. Good nutrition. pp. 8, 13, 23.

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.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 14-15.

Gregory and Wilson. Good nutrition. pp. 56-58.

Kilander. Nutrition for health. pp. 24-36, 386-388.

Proudfit and Robinson. Nutrition and diet therapy. pp. 126-133.

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 cocoanut oils.

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.

Gregory and Wilson. Good nutrition. pp. 8-42.

Kilander. Nutrition for health. pp. 74-141.

Activities:

View a film illustrating foods which are rich eources of each of the essential nutriente.

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 ie based on the Recommended Daily Allowances.
2. The Daily Dietary Pattern should be used as a guide in menu planning.
3. All foode 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 groupe.
7. By meane of lectures, demonstrations, exhibits, the Daily Dietary Pattern can be presented to the public for their education.

Referencee:

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

Gregory and Wilson. Good nutrition. pp. 56-61.

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:

Bell. Lecture notes on normal nutrition. pp. 10-11.

Gregory and Wilson. Good nutrition. pp. 57-61.

Activities:

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

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

Give the reasone for the importance to the New Zealand people of an adequate intake of iodized ealt.

Problem 10. What are the food requirements during growth?

Teaching points:

1. Protein ie required in increased amounte for tieeue building.
2. The intake of carbohydrates and fats ie increaeed to eupply additional energy.
3. Calcium and phoephorus are needed in greater amounte for growth of bonee and formation of teeth.
4. The intake of iron ie increaeed to meet added demands for the making of blood.
5. Iodine muet be included in the diet in greater amounts to prevent the development of simple goiter.
6. Adequate vitamin D muet be eupplied in conjunction with calcium and phoephorus 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 increaee of food and food conetituente in each caee depends upon the person and his individual nutritional neede.

Referencee:

Bell. Lecture notes on normal nutrition. pp. 19, 30, 33, 35, 43, 55-56, 70-71, 81.

Bogert. Nutrition and physical fitness. pp. 523-550.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 184-199.

Gregory and Wilson. Good nutrition. pp. 9-14, 24, 26, 29.

Kilander. Nutrition for health. pp. 230, 232-233.

Proudfit and Robinson. Nutrition and diet therapy. pp. 196-230.

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 necessery 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.

Bogert. Nutrition and phyeical fitness. pp. 503-520.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 155-166.

Proudfit and Robinson. Nutrition and diet therapy. pp. 181-187.

Activities:

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

Modify the diet for pregnancy to meet the neede 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 menue should include a variety of foode.
4. For low cost menue eome of the lese expensive foods included in the Daily Dietary Pattern should be used.
5. Meale should appeal to the appetite.
6. Fresh fruite and vegetables and milk should be included in the daily menue as much as the food money will permit.
7. Menue should be planned for three meale per day only.
8. Family menus should be planned to care for the food neede of all members.

References:

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

Bogert. Nutrition for health. pp. 328-341.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 133-141.

Gregory and Wilson. Good nutrition. pp. 62-65.

Proudfit and Robinson. Nutrition and diet therapy. pp. 126-144.

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 — 6-12 one hour classes plus study time

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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 233-242.

Diet therapy notes for nurses.

Proudfit and Robinson. Nutrition and diet therapy. pp. 243-251.

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 ecarlet fever ie reduced because of the complication of acute nephritis which often occure.

5. During convalescence from scarlet fever a high caloric, high protein diet ie given to reetore good nutritional etatus.

6. For chronic febrile conditions, eg. 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 euch minerale and vitamins, as:
   (a) calcium - for calcification of the tuberculous nodee.
   (b) iron - neceseary if there hae been haemoptyeis.
   (c) vitamin D - for the absorption and utilization of calcium.
   (d) B vitamins - for their role in the oxidation of food as a etimulant to the appetite.
   (e) vitamin C - because there is a low level of this eubetance in the blood.

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

Referencee:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and dieease. pp. 255-260.

Diet therapy notee for nursee.

Proudfit and Robinson. Nutrition and diet therapy. pp. 318-327.

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 ueed in the treatment of cardiac conditions?

Teaching points:

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

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

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

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

5. Small meale are advisable to avoid pressure by the etomach on the heart.

6. Obesity is a predisposing cauee of hypertension eo that gradual reduction in weight ehould be encouraged.

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

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

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 355-368.

Diet therapy notes for nursee.

Proudfit and Robinson. Nutrition and diet therapy. pp. 423-432.

Activities:

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

Plan a low ealt or eodium 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 alao required for the treatment of pernicious anemia for rapid growth of the red cells after vitamin B_{12} is administered.

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

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

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 378-382.

Diet therapy notes for nurses.

Proudfit and Robinson. Nutrition and diet therapy. pp. 449-460.

Activities:

Suggest four ways in which liver can be aerved.

Plan a diet for a patient with nutritional anemia.

Problem 5. What is the dietary treatment for gastritie and peptic ulcere?

Teaching points:

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

2. In treating gastritis, eolid food ehould be added to the diet very gradually - the first food to be given being criep dry toast or crackere.

3. A light diet should be given for gastritis where the patient'e condition permite.

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

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

6. Frequent emall feedings ehould be given in the dietary treatment of peptic ulcer.

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

8. The normal dietary requirements muet 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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and diseaso. pp. 314-321.

Diet therapy notes for nurees.

Proudfit and Robinson. Nutrition and diet therapy. pp. 328-345.

Activities:

Several membere of the claes do case histories of ulcer patients and present these to the class for discueeion.

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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 328-335.

Diet therapy notes for nurses.

Proudfit and Robinson. Nutrition and diet therapy. pp. 347-370.

Activities:

Plan a diet for a petient with chronic atonic constipation.

Calculate the amount of thiamine in thie diet, and compars with the recommended dietary allowancs.

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

Teaching points:

1. In dissaeee of the liver thc following functions are impaired:
   (a) carbohydrate etorage.
   (b) fat metaboliem.
   (c) serum protein production.
   (d) prothrombin production.

2. For acute infectious hepatitie the dietary treatment is ae followe:
   (a) in the acute etage because of pain and nauesa, intravenous food and fluid may be given.
   (b) as soon ae 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 hspatitie has passsd.

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

5. Where ssvere ascites and general edema exiet, it may bs nscessary to limit the fluid and ealt intake in cirrhosie of the liver.

6. The distary treatment for acute cholecystitis ie:
   (a) copious fluide becauee of fever.
   (b) protein - 30 to 40 grams, the amount that ie well tolerated.
   (c) carbohydrate intake increaeed to provide eufficient calories.
   (d) fat excluded as it causes contraction of the gall bladder.

7. Ths dietary treatment for chronic cholecystitis ie:
   (a) reduced calories, as obssity ie usually preeent .
   (b) low to moderate fat intaks, depending on the patient'e tolerance.

(c) normal amounts of protein.
(d) carbohydrate intake depending on the presence or extent of obeeity.
(e) adequate fluide.
(f) adequate vitamin intake, especially vitamins A, D, and K.

8. For poet-operative dietary treatment a low fat diet is continued for eome months, and obesity must be guarded againet.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 336-346.

Diet therapy notes for nurses.

Proudfit and Robinson. Nutrition and diet therapy. pp. 372-379.

Activities:

Visit a patient euffering from cirrhosis or infectious hepatitie, and discuss with him hie dietary treatment. Report the experience to claes.

Plan a low fat diet fcr a patient with cholecystitie. Calculate the amount of fat.

Problem 8. What is the dietary treatment for diabetes?

Teaching pointe:

1. The treatment of diabetes ie by diet, and if neceesary, insulin.

2. The dietary preecription takee into consideration the eeverity of the diseaee and the maintenance requirements of the patient.

3. The caloric intake should allow the patient to loee or gain weight when he reaches hie ideal or elightly below his ideal body weight.

4. The protein intake should be normal, i.e., 1-1½ 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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 290-313.

Diet therapy notes for nurses.

Proudfit and Robinson. Nutrition and diet therapy. pp. 381-400.

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, gastro intestinal 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 ceses of obesity, the caloric intake ie cut from one-fourth to one-half, but less than 1,200 calories ie unadvieable unlese uhder strict medical supervieion.

6. Carbohydrete and fats constitute the greatest eources of calories, eo must be considerably reduced.

7. A normal or slightly higher inteke of protein is advocated due to ite epecific dynamic action which etimulates metebolism.

8. The diet ehould be adequate in minerals and vitemins, and foods included ehould heve a high eatiety value.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and diseese. pp. 243-252.

Diet therapy notee for nurses.

Proudfit and Robineon. Nutrition and diet therapy. pp. 298-309.

Activities:

Set up an exhibit to ehow the weight of the following foods necessary to eupply 100 calories.

Plen a diet for a homemaker, 5' 4" tall and weighing 168 pounde. List the instructione that should be given her about her diet.

Problem 10. What dietary treatment is used for nephritie?

Teaching points:

1. Nephritis may be of short duration (ecute form) or of many yeare duretion (chronic form) and no one type of diet ie applicable to all kinde of nephritis.

2. The dietery aim in acute nephritis is to reet the inflamed glomeruli by restricting caloriee, protein, fat, salt end fluide.

3. Orenge juice sweetened with glucose is the only food or fluid given for the first few daye.

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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 369-375.

Diet therapy notes for nurses.

Proudfit and Robinson. Nutrition and diet therapy. pp. 434-442.

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 nsphritis.

Problem 11. What rules shall be followed in planning and preparing tubs fseds?

Teaching points:

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

2. Ths mixture ehould be of the correct coneistsncy to pass through the tube and ehould be slightly warmed.

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

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

5. Carbohydrate may bs eupplied from euch foods ae milk, glucose, eugar, honey and syrup.

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

7. Vitamins are supplied thue:
   (a) A - from milk, crsam, egge.
   (b) B complee - from milk, eggs, yeaet, etc.
   (c) C - from orange juice or rosehip eyrup.
   (d) D - from fieh liver oils.

8. Tube feeding may be ussd for eevere anorexia nervoea, gastro and any duodenal feedinge when necessary.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 398-406.

Diet therapy notes for nursee.

Proudfit and Robinson. Nutrition and diet therapy. pp. 310-316.

Activities:

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

Plan a tube feed containing 2,000 caloriee which containe 120 grame of protein.

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

Teaching pointe:

1. Food allergy may denote unusual eensitivenees to some particular protein or derivativa of protein, tha food caueing the condition varying widely in protein content.

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

3. When the caueative factore have been identified, the following coureee are open:
   (a) desensitize the patient gradually to thoee foods.
   (b) limit the patient to tha offending foods.
   (c) uee ACTH and cortisona.

4. The patient muet 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 deficienciee.

6. Milk eensitivity in infante 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 infante is due to eensitivity to casein, soya bean milk or meat with appropriate additione may be used.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and dieease. pp. 347-353.

Diet therapy notes for nursee.

Proudfit and Robinson. Nutrition and diet therapy. pp. 471-487.

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.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 3-14.

Gregory and Wilson. Good nutrition. pp. 5-31.

Kilander. Nutrition for health. pp. 3-6, 7-8.

Proudfit and Robinson. Nutrition and diet therapy. pp. 3-5.

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.

Bogert. Nutrition and physical fitness. pp. 6-28, 110-128.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 19-107.

Kilander. Nutrition for health. pp. 15-18.

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 nutrienta 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 end aerved?

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 430-432, 435-438, 468-474, 576-579.

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

Proudfit and Robinson. Nutrition and diet therapy. pp. 505-506, 584-587, 619-620.

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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 290-313.

Diet therapy notes for nurses.

Proudfit and Robinson. Nutrition and diet therapy. pp. 381-400.

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

(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

the base._____

_____

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.

MENU	SERVICE DISHES AND SILVER
Liver and bacon	_____
Tomatoes	_____
Bread - butter - jam	_____
Homemade biscuits	_____
Raw fruit	_____
Tea	_____

(b) In this rectangular space indicate how to place the foods and silver dishes and accompaning silver.

III. In the right hand column are lieted some foode that might be prepared for an evening meal. In the left hand column are eome principles of food preparation eome 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 ite preparation.

_____1. Heat and moieture cause starch grains to burst the walls of cellulose that incloee them.

_____2. Starch ewells and thickens liquide in the presence of heat.

_____3. To prevent lumping of starch grains, fat is ueed to eeparate the grains of starch before adding hot liquid.

_____4. Dry heat 320° F. changes starch to dextrin.

_____5. Boiling extracte 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 emall amount of boiling salted water ie ueed in vegetable cookery to prevent excess losees of minerale and vitamins.

1. tea
2. eggs
3. cocoa
4. brussel sprouts
5. white sauce
6. rice
7. toast
8. semolina
9. cheese dishes
10. oatmeal

IV. In the blanke at the left check the word or words that make the following statements correct. (In some only one blank is checked; in othere 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.
Lecture notes on normal nutrition. Wellington: New Zealand Department of Health, 1950.

Bogert, L. Jean.
Nutrition and physical fitness. Sixth edition. London: W. B. Saunders Company, 1954.

Cooper, Lenna F., Edith M. Barber, Helen S. Mitchell and Henderika J. Rynbergen. Nutrition in health and disease. Twelfth edition. London: J. P. Lippincott Company, 1953.

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

Geogory, Elizabeth, and Elizabeth C. Wilson.
Good nutrition. Fourth edition. Wellington: New Zealand Department of Health, 1954.

Hospital diet manual. n.d. n.p.

Kilander, Holger F.
Nutrition for health. Second edition. London: McGraw-Hill Book Company, 1951.

Notee for preliminary nurses on invalid cookery and service of food. n.d. n.p.

Proudfit, Fairfax T., and Corinne H. Robinson. Nutrition and diet therapy. Ninth edition. New York: Macmillan Company, 1949.

The Courses in Nutrition and Dietetice for Student Dietitians

Neede of etudent dietitiane 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 principlee of nutrition and eepecially how these are carried out during pregnancy and lactation.
4. Understanding that an adequate diet is the basie for all therapeutic diets.
5. Knowing how to modify the normal diet to meet various diseaeed 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 hie family the fundamentale of good nutrition.
8. Instructing the patient and hie family how to uee and follow hie diet at home.
9. Planning menue for patients on different economic levele.

Guiding principles for the coureee in nutrition and dietetics for etudent dietitiene.

1. The nutrition and dietetic courses for student dietitians ehould be baeed on the neede of the students relative to nutrition and dietetics.

2. These courses must meet the requirements for instruction in nutrition and dietetice as set up in the Dietitians Regulatione under the Dietitians Act.

3. Theee courses should be based on the nutrition background of the etudent dietitians.

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

5. Theee courses should help the student dietitians to develop a eound knowledge of nutrition and dietetics and their importance in health and diseaee.

6. Theee courses ehould 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 fielde of nutrition, dietetics and medicine.

Objectives for the nutrition and dietetic courses for student dietitiane.

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

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

3. To know how the normal diet ie modified in certain diseaeed 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 dieeaeed 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 fitnesa. pp. 3-7

Chaney. Nutrition. pp. 7-16.

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

Youmane. Some current aepects of nutrition. Amer. Dietet. Aesoc. Jour. 28:1029-1035. November, 1952.

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 characteristice of a good nutritional state. Make it suitable for use in a nutrition claes for young mothere.

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 eufficient eleep and relaxation especially if she is breast feeding her baby.

2. The protein requirement for most infants is from two to four grame 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 infante ie 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:

Amer. Med. Assoc. Handbook of nutrition. pp. 275-298.

Bogert. Nutrition and physical fitness. pp. 523-533.

Chaney. Nutrition. pp. 354-381.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 168-183.

McLester and Darby. Nutrition and diet in health and disease. pp. 224-237.

Proudfit and Robinson. Nutrition and diet therapy. pp. 196-212.

Richmond and Pollock. Psychological aspects of infant feeding. Amer. Dietet. Assoc. Jour. 29:656-659. July, 1953.

Ziegler. Mineral-enriched meats for diets of infants requiring a milk substitute. Amer. Dietet. Assoc. Jour. 29:660-665. July, 1953.

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:

Baumgertner. Wider horizons for children. Amer. Dietet. Assoc. Jour. 27:281-284. April, 1951.

Bogert. Nutrition and physical fitness. pp. 533-549.

Chaney. Nutrition. pp. 383-406.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and diseaee. pp. 184-199.

Jefferson. Child feeding in the United States in the nineteenth century. Amer. Dietet. Assoc. Jour. 30:335-343. April, 1954.

McLester and Darby. Nutrition and diet in health and disease. pp. 214-223.

Proudfit and Robinson. Nutrition and diet therapy. pp. 214-231.

Robinovitch.and Fischloff. Feeding children to meet their emotional needs. Amer. Dietet. Assoc. Jour. 28: 614-621. 1952.

Stuart. Children's nutritional needs during growth and development. Amer. Dietet. Assoc. Jour. 25:934-936. November, 1949.

Wagner. Appetites and attitudes - a viewpoint on feeding the young child. Amer. Distet. Assoc. Jour. 30: 329-334. April, 1954.

Weng. A study of lay publications on child feeding. Amer. Dietet. Assoc. Jour. 28:927-938. October, 1952.

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 nutrisnts in ons day's menu and compare that with the Rscommended Dietary Allowances.

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

Teaching points:

1. An adequate diet for oldsr persons is an important factor in prsventing and retarding senility.

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

3. Protsin 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 dist during old age should be adequate in all respscts.

6. Becauss ths appetite doss not always decrease with the lowered caloric needs, obesity should be avoidsd.

7. Vitamin supplements may be necessary but should be taken only on ths 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:

Amer. Med. Assoc. Handbook of nutrition. pp. 327-349.

Bogert. Nutritinn and physical fitness. pp. 553-563.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 201-212.

Donahue. Psychological aspects of feeding the aged. Amer. Dietet. Assoc. Jour. 27:461-465. June, 1951.

Horwitt. Dietary requirements of the aged. Amer. Dietet. Assoc. Jour. 29:443-448. May, 1953.

McLester and Darby. Nutrition and diet in health and disease. pp. 221-222.

Proudfit and Robinson. Diet therapy. pp. 232-238.

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:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 164-165.

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 inteke of iron is necessary during pregnancy.

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

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

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

References:

Amer. Med. Aesoc. Hendbook of nutrition. pp. 299-324.

Bogert. Nutrition and physical fitness. pp. 503-512.

Chaney. Nutrition. pp. 332-344.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health end disease. pp. 155-164.

Dieckmann, Turner, Meiller, Savage, Hill, Straube, Pottinger and Rynkiewicz. Observetions on protein intake and the health of the mother and baby. Amer. Dietet. Aesoc. Jour. 27:1046-1058. December, 1951.

Jeans, Smith and Stearns. Dietary habite of women of low income in a rural state. Amer. Dietet. Assoc. Jour. 28:27-34. January, 1952.

McLester and Darby. Nutrition and diet in health and diseaee. pp. 238-245.

Murphy and Wertz. Diets of pregnant women: influence of eocio-economic factors. Amer. Dietet. Assoc. Jour. 30:34-38. January, 1954.

Proudfit and Robinson. Nutrition and diet therapy. pp. 181-190.

Scrimshaw. Evaluation of nutrition in pregnancy. Amer. Dietet. Aseoc. Jour. 26:21-24. January, 1950.

Activities:

Plen a day'e menu for a woman of average size in the eeventh month of pregnancy and calculate the amounts of the essential nutriente.

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:

Amer. Med. Assoc. Handbook of nutrition. pp. 324-326.

Bogert. Nutritinn and physical fitness. pp. 512-520.

Chancy. Nutrition. pp. 344-352.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 165-167.

McLester and Darby. Nutrition and diet in health and disease. pp. 238-245.

Proudfit and Robinson. Nutrition and diet therapy. pp. 190-193.

Sure. Vitamin B_{12} in reproduction and lactation. Amer. Dietet. Assoc. Jour. 27:564-567. July, 1951.

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 importence 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:

Bay. Teaching food preparation. Amer. Dietet. Assoc. Jour. 29:774-777. August, 1953.

Bulman. Our future. Amer. Dietet. Assoc. Jour. 29: 545-547. June, 1953.

Chaney. Nutrition. pp. 409-423.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 15-17.

Everote. A fuller use of specialists in producing educational films. Amer. Dietet. Assoc. Jour. 26:329-331. May, 1950.

Haberman. When a dietitian speaks. Amer. Dietet. Assoc. Jour. 29:437-440. May, 1953.

Hiller. Community relations. Amer. Dietet. Assoc. Jour. 29:653-655. July, 1953.

Kedneigh. Professional participation in perspective. Amer. Dietet. Assoc. Jour. 29:465-467. May, 1953.

Myers. Is the dietitian adequately prepared to teach? Amer. Dietet. Assoc. Jour. 26:663-667. September, 1950.

Ritchie. Teaching people better habits of diet. Amer. Dietet. Assoc. Jour. 26:94-97. February, 1950.

Whitehead. Studies in nutrition education. Amer. Dietet. Assoc. Jour. 28:622-627. July, 1952.

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.

Diet Therapy 14-16 one hour periods

Objectives:

1. To realize that all therspeutio diets are modifioations of the normal diet.
2. To know that the body has the same basio 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 disesses.
6. To know the dietary treatment used in complioations of pregnanoy.
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 dietsry means.
9. To teaoh patients and their families the principles of prescribed dietary treatment and how to carry it out at home.

Diet Therapy 14-16 one hour classes plus study time

Problems (lessons)

1. What modifioations 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 tresting 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:

Babcock. Problems in sustaining the nutritional care of patients. Amer. Dietet. Assoc. Jour. 28:222-226. 1952.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 233-242.

Duncan. Some nutritional hazards of the hospitalized patient. Amer. Dietet. Assoc. Jour. 25:338- . 1949.

Keeton. Influence of distribution of meals on appetite in the sick. Amer. Dietet. Assoc. Jour. 26:336-344. 1950.

Proudfit and Robinson. Nutrition and diet therapy. pp. 243-267.

Proudfit and Robinson. Development of positive food therapy, changing concepts lead to better nutrition. Amer. Dietet. Assoc. Jour. 25:497-503. 1949.

Rhoads. Supranormal dietary requirements of acutely ill patients. Amer. Dietet. Assoc. Jour. 29:897-903. 1953.

Turner. Handbook of diet therapy. pp. 17-68.

White. The patient as the focus of attention. Amer. Dietet. Assoc. Jour. 30:25-28. 1954.

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, oedema, 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 anasthesia.

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.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 398-406.

McLester and Darby. Nutrition and diet in health and disease. pp. 566-581.

Proudfit and Robinson. Nutrition and diet therapy. pp. 310-316.

Van Italle and Stare. Recent advances in nutrition related to surgical care. Amer. Dietet. Assoc. Jour. 28:13-16. January, 1952.

Wohl. Dietotherapy. pp. 875-923.

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 rasidue, 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:

Barborka. Treatment by diet. pp. 430-452.

Brewer, Cederquist, Cole, Tobey, Ohlson and Stringer. Calcium and phosphorus metabolism of women with active tuberculosis. Amer. Dietet. Assoc. Jour. 30: 21-24. January, 1954.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 255-260.

Getz. Problems in feeding the tuberculosis patient. Amer. Dietet. Assoc. Jour. 30:17-20. January, 1954.

McLester and Darby. Nutrition and diet in health and disease. pp. 479-506.

Proudfit and Robinson. Nutrition and diet therapy. pp. 318-327.

Wohl. Dietotherapy. pp. 866-874.

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:

Barborka. Treatment by diet. pp. 552-575, 654-660.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 347-354.

McLester and Darby. Nutrition and diet in health and diseases. pp. 355-361, 561-565.

Proudfit and Robinson. Nutrition and diet therapy. pp. 471-487.

Rowe. Elimination diets and the patients' allergies.

Wohl. Dietotherapy. pp. 757-781.

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 B_{12}, now thought to be the extrinsic factor, is administered in conjuction 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:

Adlersberg and Rabinowity. The sprue syndrome - improved dietary management. Amer. Dietet. Assoc. Jour. 26:879-882. November, 1950.

Bethel. Treatment of macrocytic anemias with vitamin B_{12}. Amer. Dietet. Assoc. Jour. 26:89-92. February, 1950.

Barborka. Treatment by diet. pp. 378-401.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 378-382.

McLester and Darby. Nutrition and diet in health and disease. pp. 526-535.

Proudfit and Robinson. Nutrition and diet therapy. pp. 449-459.

Wohl. Dietotherapy. pp. 827-844.

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 occuring 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.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 162-164.

Duncan. Diseases of metabolism. pp. 315-363, 367-388, 409.

McLester and Darby. Nutrition and diet in health and disease. pp. 242-245.

Proudfit and Robinson. Nutrition and diet therapy. pp. 186-190.

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 diseaees treated by diet?

Teaching pointe:

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

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

3. The rules for treating febrile conditions are followed in the dietary treatment of mumpe, scarlet fever, tonsilitis and whooping cough; mbdificatione necessary for each condition are:
   (a) mumpe - highly seaeoned foode 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 dieeaee 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 neceesary, a variety of foode rich in protein should be included and ways adopted for including large quantities of milk.

6. Although the eame dietary principlee are followed in treating child diabetics, the peychological aspect of the situation should be carefully handled, and the diet muet contain adequate foode and nutrients for growth.

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

8. In treating casee of childhood obesity, care must be taken to provide enough of the eseential nutrients to allow for growth.

References:

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and diseaee. pp. 407-415.

Kugelmase. The newer nutrition in pediatric practice. pp. 442-448, 511-522, 557, 725-761, 764-819, 918-984, 1006-1008, 1026.

Phelps. Dietary requiremente in cerebral palsy. Amer. Dietet. Assoc. Jour. 27:869-870. October, 1951.

Wallace. Feeding the hospitalized child. Amer. Dietet. Assoc. Jour. 29:449-453. May, 1953.

Wilcox and Galloway. Children with and without rheumatic fever. Amer. Dietet. Aesoc. Jour. 30:453-457. May, 1954.

Activities:

Outline the special dietary treatment necessary for (a) mumps, (b) scarlet fever, (c) tonsilitie, (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 diseaeee?

Teaching points:

1. A deficiency disease is any pathological or subnormal condition for which eome specific food deficiency ie 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 eufficient calories.

3. Night blindnees and xerophthalmia are caused by insufficient vitamin A in the diet and are treated by adminietering concentrated sources of thie vitamin.

4. Lack of thiamine in the diet caueeâ 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:

Barborka. Treatment by diet. pp. 344-401.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 261-289.

Duncan. Diseases of metabolism. pp. 425-570.

McLester and Darby. Nutrition and diet in health and disease. pp. 251-273.

Proudfit and Robinson. Nutrition and diet therapy. pp. 268-296.

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 diseasee 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 abeorption of food.
   (c) venos congestion interferes with the activity of the intestinal tract.

2. The aime 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 firet clase 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 stasie of the gall bladder.

References:

Barborka. Treatment by diet. pp. 492-513.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in heelth and disease. pp. 326-345.

Duncan. Diseases of metabolism. p. 397.

McLester and Darby. Nutrition and diet in health and disease. pp. 458-476.

Proudfit and Robinson. Nutrition and diet therapy. pp. 372-379.

Wohl. Dietotherapy. pp. 589-612.

Activities:

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

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

Problem 10. What are the principles of dietary treetment 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 treet the patient's condition accordingly.

4. The characteristics of the diet for peptic ulcers are:
   (a) mechanically, chemicelly, and thermally non-irritating foods.

(b) foods that neutralize and inhibit acidity.
(c) frequent small meals.
(d) 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:

Barborka. Treatment by diet. pp. 453-486, 524-551.

Boles. Modern medical and surgical treatment of peptic ulcer. Jour. Amer. Med. Assoc. 136:528-535. February, 1948.

Cheney. Vitamin "U" in the treatment of peptic ulcer. Amer. Dietet. Assoc. Jour. 26:668-672. September, 1950.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 314-335.

Grace, Wolf and Wolff. Life situations, emotions, and chronic ulcerative colitis. Jour. Amer. Med. Assoc. 142:1044-1048. April, 1950.

Grimison, Lyons and Reeves. Clinical trial of banthine in 100 patients with peptic ulcer. Jour. Amer. Med. Assoc. 143:873-877. July, 1950.

Kirsner, Palmer, Maimon and Rickets. Course of chronic nonspecific ulcerative colitis. Jour. Amer. Med. Assoc. 137:922-928. July, 1948.

McLester and Darby. Nutrition and diet in health and disease. pp. 393-458.

Proudfit and Robinson. Nutrition and diet therapy. pp. 328-369.

Wohl. Dietotherapy. pp. 557-589.

Zollinger and Hoerr. Gastric operations: troublesome post-operative symptoms with special reference to carbohydrate ingestion. Jour. Amer. Med. Assoc. 134:575-579. June, 1947.

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 11. 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:

Barborka. Treatment by diet. pp. 86-160, 378, 586-599.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 290-312, 390-396.

Committee on Diabetic Diets. Amer. Dietet. Assoc. Calculation of diabetic diets. Amer. Dietet. Assoc. Jour. 26:575-582. July, 1950.

Duncan. Diseases of metabolism. pp. 290-294, 412, 733-749, 775-950, 957, 1007.

Geiger. Nutritional problems connected with diabetes. Amer. Dietet. Assoc. Jour. 28:905-910. October, 1952.

McLester and Darby. Nutrition and diet in health and disease. pp. 278-314, 557-559.

Proudfit and Robinson. Nutrition and diet therapy. pp. 381-400.

Wohl. Dietotherapy. pp. 616-641, 784-790.

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 calorie 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:

Barborka. Treatment by diet. pp. 413-429.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 355-368.

Gofman, Tomplin and Strisower. Relation of fat and calorie intake to atherosclerosis. Amer. Dietet. Assoc. Jour. 30:317-325. April, 1954.

Mann. Research in cholesterol metabolism related to cardiovascular disease. Amer. Dietet. Assoc. Jour. 27:209-211. March, 1951.

McLester and Darby. Nutrition and diet in health and disease. pp. 508-524.

Proudfit and Robinson. Nutrition and diet therapy. pp. 423-432.

Wakerlin. Nutrition in relation to disease of the heart and blood vessels. Amer. Dietet. Assoc. Jour. 26:417-420. June, 1950.

Wohl. Dietotherapy. pp. 666-694.

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:

Barborka. Treatment by diet. pp. 236-296, 576-585.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 369-376.

Duncan. Diseases of metabolism. pp. 315-363, 367-388, 403, 1035-1072.

McLester and Darby. Nutrition and diet in health and disease. pp, 363-390.

Proudfit and Robinson. Nutrition and diet therapy. pp. 434-447.

Wohl. Dietotherapy. pp. 643-665.

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 typee of neural degeneration have been fount to be caused by a nutritional deficiency as:
   (a) neuraethena - pellagra and early thiamine deficiency.
   (b) neural changes - pernicious anemia and eprue.
   (c) polyneuritie - beriberi, pregnancy and ulcerative colitie.

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

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

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

5. Acute arthritie and rheumatic fever should be treated by diet in the same way as any other acute illnese.

6. Good nutritional practices are of epecial importance in treating chronic arthritie, as many food fallacies have been built up around thie condition.

7. If obesity ie present in arthritic patiente, weight reduction ehould be carried out.

8. Gout may produce a condition reeembling arthritis, and obesity must be treated if present.

Referencee:

Barborka. Treatment by diet. pp. 611-612, 614-621.

Coburn. Problems in the prevention of rheumatic fever by a reinforced diet. Amer. Dietet. Assoc. Jour. 26: 345-349. June, 1950.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and diseaee. pp. 383-389.

Galdeton. Nutrition from the psychiatric viewpoint. Amer. Dietet. Aeeoc. Jour. 28:405-409. May, 1952.

McLester and Darby. Nutrition and diet in health and disease. pp. 538-555.

Proudfit and Robinson. Nutrition and diet therapy. pp. 413-422.

Wohl. Dietotherapy. pp. 733-756, 849-859, 864-866.

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 lose of body tiesue characteristic of leanness.

References:

Amer. Med. Assoc. Handbook of nutrition. pp. 409-444.

Bayles and Ebaugh. Emotional factors in eating and obesity. Amer. Dietet. Assoc. Jour. 26:430-434. June, 1950.

Barborka. Treatment by diet. pp. 196-235.

Bowser, Trulson, Bowling and Stare. Individual vs. group therapy in reducing. Amer. Dietet. Assoc. Jour. 29: 1193-1196. December, 1953.

Brewer, Cederquist, Cole, Togey, Ohlson and Stringer. Low fat vs. low carbohydrate reducing diets. Amer. Dietet. Assoc. Jour. 28:213-216. March, 1952.

Cederquist, Brewer, Beegle, Wagoner, Dunsing and Ohlson. Low fat vs. low carbohydrate reducing diets. Amer. Dietet. Assoc. Jour. 28:113-116. February, 1952.

Chaney. Nutrition. pp. 565-587.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and diseaee. pp. 243-253.

Darling and Summerskill. Emotional factors in obesity and reducing. Amer. Dietet. Assoc. Jour. 29:1204-1207. December, 1953.

Duncan. Diseases of metabolism. pp. 573-662.

Leverton and Gram. Further studies of obese young women during weight reduction - calcium, phosphorus and nitrogen metabolism. Amer. Dietet. Assoc. Jour. 27: 480-484. June, 1951.

McLester and Darby. Nutrition and diet in health and dieease. pp. 330-349.

Munves. Group discussion - decision vs. interviewing in reducing. Amer. Dietet. Assoc. Jour. 29:1197-1202. December, 1953.

Proudfit and Robineon. Nutrition and diet therapy. pp. 298-308.

Wohl. Dietotherapy. pp. 791-823.

Young. Reducing and maintenance on the moderate fat diet. Amer. Dietet. Assoc. Jour. 29:890-896. September, 1953.

Activities:

Plan a diet for an obese woman of 5'3" who needs to lose 30 pounds.

Plsn sn 800 cslorie diet for an obese woman who is hospitalized and does not like raw fruit..

Problem 16. How msy a dietitian help her pstients and their families to understsnd and sdjust to their diets?

Tesching 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 tske 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 giveh 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 heslth snd well being.

7. She should srrange to see the members of the pstient's family so that the diet is explained to them also.

8. Dietary follow-ups are of great vslue in helping the patient adjust to his diet at home.

References:

English. Psychomatic medicine and dietetics. Amer. Dietet. Assoc. Jour. 27:721-725. September, 1951.

Hughes. What do ye more than others? Amer. Dietet. Assoc. Jour. 28:336-340. April, 1952.

Miller. Is dynamic knowledge of nutrition essential for every dietitian? Amer. Dietet. Assoc. Jour. 26: 600-606. August, 1950.

Victor. Devoted bedside dietary care. Amer. Dietet. Assoc. Jour. 29:474-476. May, 1953.

White. The patient as the focus of attentinn. Amer. Dietet. Assoc. Jour. 30:25-28. January, 1954.

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:

Amer. Med. Assoc. Handbook of nutrition. pp. 327-349.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health and disease. pp. 201-212.

Dietary requirements of the aged. Amer. Dietet. Assoc. Jour. 29:443-448. May, 1953.

McLester and Darby. Nutrition and diet in health and disease. pp. 221-222.

Proudfit and Robinson. Nutrition and diet therapy. pp. 232-238.

Psychological aspects of feeding the aged. Amer. Dietet. Assoc. Jour. 27:461-465. 1951.

Questions for Guidance in Study:

1. Why is an edequate diet important for older people?
2. What is the difference between the celoric 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 especielly 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 dietitiens)

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

References:

Barborka. Treatment by diet. pp. 378-401.

Cooper, Barber, Mitchell and Rynbergen. Nutrition in health end disease. pp. 378-382.

McLester and Darby. Nutrition end diet in health and diseese. pp. 526-535.

Proudfit and Robinson. Nutrition and diet therapy. pp. 449-459.

The sprue syndrome - improved dietary management. Amer. Dietet. Assoc. Jour. 26:879-882. 1950.

Treatment of macrocytic anemias with vitamin B_{12}. Amer. Dietet. Assoc. Jour. 26:89-92. 1950.

Wohl. Dietotherapy. pp. 827-844.

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 baais 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.

Column A	Column B	Column C	Column D
1. Milk	_____	Protein	_____
2. Potato	_____	Calcium	_____
3. Green vegetables, Cauliflower or swede	_____	Iron	_____
		Ascorbic Acid	_____
4. Other vegetables	_____	Niacin	_____
5. Citrus fruit	_____	Riboflavin	_____
6. Other fruits	_____	Thiamine	_____
7. Meat or alternative	_____	Vitamin A	_____
8. Egg	_____	Iodine	_____
9. Whole grain cereals	_____		
10. Iodized salt	_____		
11. Butter and fat	_____		
12. Cheese	_____		

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
_____2. Thiamine
_____3. Riboflavin
_____4. Niacin
_____5. Ascorbic Acid

(d) Mr. Brown is firm in his refusal to eat what he calls "acid foods". In the blanks at the left check 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:

BREAKFAST

Stewed Rhubarb

____ Kornies

Milk - Sugar

____ Wholemeal Toast

Butter - Marmalade

____ Poached Egg

____ Tea

____ Milk - Sugar

DINNER

____ Roast Mutton

____ Mashed Potato

____ Cabbage

Pumpkin

Gravy

____ Apple Crisp

Milk

SUPPER

____ Cold Ham

____ Lettuce, tomato and cucumber salad

____ Boiled dressing

____ White bread

Butter - Jam

Scone

Tea

Milk - Sugar

(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. Niacin
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	_____Mineral oil	_____Pineapple juice
_____Butter	_____Golden syrup	_____Potatoes
_____Cream	_____Oatmeal	_____Bacon
_____Orange juice	_____Lard	_____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	_____Calories	_____Iron
_____Calcium	_____Niacin	_____Riboflavin
_____Thiamine	_____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.

Column A	Column B
1. Liver	1. Glucose_____
2. Muscle	2. Glycogen_____
3. Blood	3. Galactose_____
4. Mammary Gland	4. Lactose_____
5. Brain	
6. Nerve Tissue	

(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

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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.

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

by

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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