ABSTRACT

A description is provided of "Theories for Extended Pediatric Nursing Practice," a required course for pediatric and family nurse practitioner students in a California state university program. The course description presents information on the curricular placement of the course, prerequisites, in-class time allotments, and the focus of the course on selected theories and concepts from the natural and social sciences applicable to the role of nursing practitioners. Next, the course content is considered in terms of end-of-course and long-range goals and objectives, the units of instruction, and course materials, including required texts, a bibliography of additional readings, and audiovisual materials. Then, descriptions are presented of the 12 course units: (1) assessment of the newborn; (2) advanced concepts in growth and development (0-6 years); (3) advanced concepts in growth and development (7-18 years); (4) immunization principles; (5) accidents and environmental safety; (6) speech and language assessment; (7) nutrition and feeding patterns; (8) laboratory procedures; (9) pediatric pharmacology; (10) common pediatric dermatologic problems; (11) common pediatric ear, nose, and throat problems; and (12) common opthalmological problems. Each unit description provides an overview of the topic, specifies goals and objectives, and identifies reading and audiovisual assignments. Finally, course and student evaluation procedures are discussed. (HB)
I. TITLE PAGE

Course Title: Nursing 680A: Theories for Extended Pediatric Nursing Practice

Faculty: Margaret Brady, R.N., M.S., P.N.P.

Unit Value: 3 semester units

Department: California State University, Long Beach
Department of Nursing

Date: March 14, 1984
II. COURSE DESCRIPTION

Curricular Placement: One of two clinical theory sequences starting in the first semester of the Pediatric Nurse Practitioner Program; required course for all Pediatric and Family Nurse Practitioner students. Available only during the Fall semester.

Prerequisites: Admission to the Master of Science Nursing Program in the pediatric or family nursing sequence; completion of necessary prerequisite courses - pathophysiology, physical assessment plus growth and development of children.

Time Assignment: Three didactic hours per week (3 units of credit) for a total of 15 weeks.

Course Description: This course presents selected theories and concepts from natural and social sciences which are applicable to the roles of the pediatric and family nurse practitioners.

The course begins with the theory base for well child care, including physical development, preventive health care, and well child management. Upon this foundation, the theory base for the diagnosis and management of common pediatric health care problems is presented. These selected health problems
III. GLOSSARY

Terminology includes commonly used pediatric medical words. The students should, therefore, have prior knowledge of these terms.

IV. COURSE CONTENTS

A. Course Plans

1. End of Course Goals:
   a. The students will acquire a basic understanding of the relationship between clinical manifestations, diagnostic procedures, and treatment plans for common ambulatory pediatric problems.
   b. The students will be able to communicate an effective patient and/or parent education plan based upon specific pediatric illnesses.
c. The student will use established child health care practice guidelines when assessing growth and development patterns in children newborn through twenty-one years of age.

2. **End of Course Objectives:**
   
a. Within a one hour written testing period and given specific case studies outlining the clinical manifestations of three common pediatric illnesses, the student will develop a diagnostic procedure and treatment plan and discuss the rationale behind the pharmacologic management for each illness. Students must obtain a minimum of 30 out of a total 40 possible points to receive credit. Criteria used to evaluate answers is that information found in Kempe's *Textbook of Pediatrics*.

b. In a class role play situation in which the student is given background information and patient diagnosis, the student will present a 5 minute education plan. All areas outlined in the patient education handout must be addressed and all information that is given must be correct using Kempe's textbook as a reference.

c. In a short answer test and given a list of statements on child health care practices, the student will distinguish between those statements which do or do not meet established guidelines as presented either in class or in required readings. Students must discuss the rationale
behind their choices, name the source of their information and must be correct in 9 out of 10 statements.

B. Long Range Plans

1. **Long Range Goals:**

   The student will be prepared to accept the clinical management responsibilities of a pediatric nurse practitioner.

2. **Long Range Objective:**

   Based upon results of an employment survey done one year after completing the program, 80% of the students will be employed as pediatric nurse practitioners. Their stated performance of usual job related duties will meet the criteria of the scope of practice for pediatric nurse practitioners as established by the National Association for Pediatric Nurse Associates and Practitioners.

Rationale:

The Pediatric Nurse Practitioner Program is based upon the premise that graduate students enrolling in this program have shown professional competence. They have done this through fulfillment of their initial licensing as registered nurses within the state of California and completion of prerequisite course work to enter the Master of Nursing program. Thus, nursing graduate education is based upon advanced health science course
work that prepares nurse practitioners to work in the field of pediatrics. Students gain professional training which enables them to serve the health manpower needs of the local community and the State of California. This is in direct agreement with the goal of the state university system; namely, to produce graduates to meet the manpower needs of its citizenry and provide opportunities to enter rewarding forms of employment.

This course is designed to introduce beginning graduate students to advanced health science concepts. It will prepare them for roles in pediatric ambulatory health care management and is the first of 4 didactic courses comprising the core content of knowledge for the pediatric nurse practitioner program.

C. Units of Instruction

<table>
<thead>
<tr>
<th>Unit</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>I.</td>
<td>Assessment of the Newborn</td>
<td>3</td>
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<tr>
<td>II.</td>
<td>Advanced Concepts in Growth and Development (0 - 6 years)</td>
<td>4.5</td>
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<tr>
<td>III.</td>
<td>Advanced Concepts in Growth and Development (7 - 18 years)</td>
<td>4.5</td>
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<tr>
<td>IV.</td>
<td>Immunization Principles</td>
<td>3</td>
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<tr>
<td>V.</td>
<td>Accidents and Environmental Safety</td>
<td>3</td>
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<tr>
<td>VI.</td>
<td>Speech and Language Assessment</td>
<td>3</td>
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<tr>
<td>VII.</td>
<td>Nutrition and Feeding Patterns</td>
<td>3</td>
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<tr>
<td>VIII.</td>
<td>Laboratory Procedures</td>
<td>3</td>
</tr>
<tr>
<td>IX.</td>
<td>Pediatric Pharmacology</td>
<td>6</td>
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<tr>
<td>X.</td>
<td>Common Pediatric Dermatologic Problems</td>
<td>3</td>
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<tr>
<td>XI.</td>
<td>Common Pediatric Ear, Nose and Throat Problems</td>
<td>3</td>
</tr>
<tr>
<td>XII.</td>
<td>Common Ophthalmological Problems</td>
<td>3</td>
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V. MATERIALS OF INSTRUCTION

A. Required Texts*


*These books are also required texts for 680B.

B. Bibliography


C. Audiovisual Materials*

1. Video cassette
   "The Amazing Newborn" V.C. #100
   "The Oral Cavity Screening Exam" V.C. #162
   "The Physical Exam of the Toddler, Preschooler
   and Adolescent" V.C. #214
   "Childhood Strabismus" V.C. #183

2. Slide-tape series
   "The Physical Exam of the Newborn" S.T. #108
   "Dental Health and the Oral Cavity Screening Examination" S.T. #152
   "Pediatric Ambulatory Series: Otitis Media"
   "Physical Examination of the Eye" Parts I, II, IV and VI.

3. Programmed Instruction
   "Common Skin Rashes" produced by the National Association
   of Pediatric Nurse Associates and Practitioners. P.I. #2

*Materials available in Nursing Center's Learning Laboratory
VI. ORGANIZATION OF EACH UNIT OF INSTRUCTION

Unit I

Assessment of the Newborn

The evaluation of the newborn must take into account the complexities brought about as a result of the change from intrauterine to extrauterine life. The determination of gestational age, appropriateness of weight to age, and the evaluation of the integrity of the newborn's physiologic systems is of prime concern. Therefore, the pediatric nurse practitioner should understand principles of neonatology, be skilled in performance of the physical exam of the newborn and able to adequately evaluate signs/symptoms of pathology.

Goal: The student will be familiar with the principles of neonatology and techniques of assessing the physical status of average newborns.

Objective: In a multiple choice exam closed book exam, the student will

1. Correctly identify the major physical signs utilized to assess gestational age in a preterm, term and post term infant. A score of 80% correct will be considered passing.

2. In an in-class 15 minute essay and given 2 case studies describing a particular newborn's physical exam, the student will identify and describe 5 out of a possible number of 7 common variations in the exams.

3. Verbally in class, the student will correctly analyze 3 of the 5 major causes of jaundice in the newborn relative to the time of onset, physiologic causation, laboratory findings and common management.
Required Readings:
Hughes, J., Synopsis of Pediatrics. (Chapter 15)
Kempe, et. al., Current Pediatric Diagnosis and Treatment. (Chapter 2)

Required Audiovisuals:
Slide tape series "The Physical Exam of the Newborn"
Videocassette "The Amazing Newborn"

Recommended Readings:

Unit II
Advanced Concepts in Growth and Development (0 - 6 years)

The bio-psycho-social development that occurs from the first month of life until the 7th year of age herald an unprecedented period of changes in status. The knowledge of normal developmental and growth characteristics occurring during this period is paramount to the appropriate assessment and management of children. Child health supervision is, therefore, a major concern of pediatric nurse practitioners as she works to optimize well child care.

Goal: The student will be able to design the appropriate child health care maintenance schedule for children ages 1 month to 7 years of age.

Objective:
1. Given a list of 5 health screening measures, the student will state
in less than 25 words the appropriate age for their initial screening, the reason behind the screening, and list the sequence for their rescreening as recommended by the AAP.

2. The student will prepare and deliver a 5 minute verbal presentation on any health screening laboratory procedure that should be done routinely during the first 2 years of life. AAP guidelines should be used to select the procedure; and the talk should include cost of technique, its yield as a screening procedure, benefits and disadvantages.

Required Readings:
Hughes. Chapters 1, 2 and 4
Nelms and Mullins. Chapters 7, 10, 15 and 20

Recommended Readings:

Required Audiovisuals:
Videocassette "The Physical Exam of the Toddler, Preschooler and Adolescent" (only 1st 2 sections).
Unit III

Advanced Concepts in Growth and Development (7 years to 18 years)

The bio-psycho-social growth and development that occurs during the school age years is marked by a period of relative quiescence. With the onset of puberty, however, a burst of physiologic activity triggers a major alteration in bodily functions. The emergence of adolescence is indeed a challenging time for health care workers as they assist the adolescent in his/her struggle for self identity.

Goal: The student will know what constitutes an appropriate child health care assessment for a school-age child.

Objective:

1. Outside of class and given a case study situation the student will write a 2 page (typed) essay describing at least 5 areas of anticipatory guidance that should be done based on the case presentation. The appropriateness of the 5 items will be judged in class by 2 fellow students.

2. In a multiple choice, closed book test the student will be able to correctly identify at least 80% of the signs and symptoms representing abnormal historical or physical exam findings.

Goal: The student will be able to relate changing physical findings to the cause of the physiologic alteration occurring during puberty.

Objective:

1. Given 15 physiologic changes which occur during puberty, the student will correctly match all with the appropriate physiologic cause during an in class session.
Required Readings:

Kempe, et al., Chapters 12 and 16


Recommended Readings:


Required Audiovisuals:

Videocassette "The Physical Exam of the Toddler, Pre-Schooler and Adolescent" (Adolescent section only)

Unit IV

Immunization Principles

The role that immunization has played in the reduction of childhood communicable diseases has had unparalleled success. The need to maintain a vigilant watch is the responsibility of all health care professionals as they strive to educate the public as to the importance of adequate protection.

Goal: The student will appreciate the role that immunization practices have played in decreasing the incidence of common communicable childhood diseases.

Objective:

Within 6 months after completing the course, the student will participate in a community service project or job sponsored activity aimed at increasing the number of children who are
adequately immunized by the American Academy of Pediatric (AAP) standards. Participation will be measured as having planned the project/activity or having talked to a target group of parents during the event.

Goal: The student will be knowledgeable of immunization practices advocated by the American Academy of Pediatrics.

Objective:

The student will prepare (outside of class) an outline of the recommended immunization schedule for newborns through adolescence. Included in this outline should be a list of side effects. The pros and cons of each vaccine, all contraindications and ages for administration. The AAP guidelines should be used as a reference source.

Required Readings:


Hughes, Synopsis of Pediatrics, Chapter 12.


Unit V

Accidents and Environmental Safety

The sequence of preventive health maintenance education prescribed for children must always emphasize the need for counseling in accident prevention. Providing a safe environment in which a child can grow and thrive is a major responsibility for parents, and society. Hence each
health care encounter should include information which promotes the concept of safety awareness.

Goal: The student will design an anticipatory guidance plan for parents to reduce the likelihood of accidents occurring during the newborn through school-age years.

Objective:
1. Outside of class and using the Nelms and Mullin's book as reference, the student will prepare a 3 to 5 page outline listing all topics pertinent to anticipatory guidance in accident prevention for parents of newborns, toddlers, pre-schoolers and school-age children.

2. In a 15 minute, unannounced, closed book quiz, the student will correctly match all topics for anticipatory safety counseling with the appropriate age group as stated in Nelms and Mullin's book.

Required Readings:
Hughes, Synopsis of Pediatrics, Chapter 12.
Nelms and Mullins, pp. 293-4, 416-9, 571-79.

Unit VI
Speech and Language Assessment

Delay in language and speech development is often a most striking symptom. However, it is one which parents frequently miss or excuse as a mere stage that the child will outgrow. Early referral and treatment
of communication disorders is dependent on identification of the dys-functional component; therefore, this unit will stress the major speech and developmental milestones from birth to eight years of age.

Goal: The student will understand and be able to rise terms and concepts basic to speech and language disorders.

Objective:
1. Given a list of 10 common articulation disorders in class, the student will match them with complete accuracy against criteria for referral based upon the reference guide handed out.

2. In the classroom, the student will correctly list 2 examples of dysphonia and fluency problems.

3. In a short answer essay test, the student will correctly describe 5 common causes of delayed speech and language development in any given age group. The student is to include their cause (if known), at least 2 common characteristics and 2 criteria for referral.

Required Readings:
Kempe, et al., *Current Pediatric Diagnosis and Treatment*, Chapter 3.
Handouts given to class

Unit VII
Nutritional and Feeding Patterns

Good nutrition is essential for good health. Optimal physical growth and development is dependent upon an adequate supply of essential nutrients,
vitamins and minerals. An understanding of basic concepts of nutrition for children is, therefore, a crucial part of the educational component of this program.

Goal: The student will know what constitutes an appropriate nutritional diet for children of various ages.

Objective:
1. Given a case study in class of a 9 month old's usual dietary consumption, the student will list 2 areas of dietary deficiencies and 2 intervention strategies based upon the AAP nutritional guidelines for children.

2. On a written short answer exam and without references, the student will be able to identify the correct number of Kilocalories needed per Kilogram of body weight per day for the average newborn, 1 - 4 month old, 5 - 9 month old, 9 - 18 month old per AAP guidelines.

Required Readings:

Kempe, et al., *Current Pediatric Diagnosis and Treatment*. p. 256-299.

**Unit VIII**

**Laboratory Procedures**

The rationale behind laboratory procedures is to gain the most amount of information from the less numbers of tests. Laboratory procedures only serve as an adjunct to the information ascertained from the patient's
history and physical exam and should never be asked indiscriminately by the practitioner. With this in mind, laboratory testing will be presented in a format that emphasizes the indications for their use, interpretation of results and issues underlying routine laboratory screening as a component of health supervision.

Goal: The student will be able to select appropriate laboratory procedures that are indicated for certain pediatric illnesses.

Objective:
1. Given a list of clinical symptomatology descriptive of 3 common pediatric illnesses, the student will state all appropriate lab test(s) to be ordered for each of the three conditions. Appropriateness is judged on material presented in class or in the class reference text.

2. In a multiple choice exam dealing with a given list of various laboratory tests, their purposes and uses, the student will select the correct response descriptive of the laboratory test's use and purpose with 90% accuracy.

Required Reading:

Nelms and Mullins, Chapter 10, pp. 118-124.

Handout packet
Knowledge of various drugs and their categorization is information that must be constantly updated due to the rapid discovery of new agents. Therefore, the student is introduced only to the major drugs used in each category that are most frequently prescribed in ambulatory pediatrics. Also, general principles of pediatric pharmacology are reviewed and drug interactions are highlighted.

Goal: The student will understand principles of pediatric pharmacology.

Objective:

Given a list of 10 situations, the student will select the appropriate principle for each item on the closed book exam.

Goal: The student will understand the different categories of pharmacologic agents.

Objective:

1. Given a list of 30 drugs in class, the student will match each to the appropriate drug category.

2. In class the student will give a 2 minute presentation describing the characteristics of any 1 drug category.

Goal: The student will be able to write a prescription for the appropriate medication for a particular illness in a pediatric patient.

Objective:

1. On a short answer test question given the diagnosis, weight and age of the patient, the student will correctly prescribe the appropriate
medication based on criteria outlined in the class handout (essentials for prescription writing).

Required Readings:

Hughes, Synopsis of Pediatrics, pp. 841-888.

Kempe, et al., Current Pediatric Diagnosis and Treatment, Chapter 28.


Recommended Readings:


Unit X

Common Pediatric Dermatologic Problems

Rashes and other skin manifestations are the most commonly occurring pediatric problems. Therefore, it behooves the pediatric nurse practitioner to pay proper attention to dermatologic symptomatology for it often holds the key to underlying disease process. To master this content, the student will need to view and review the color atlas of pediatric skin conditions until it becomes worn with use.

Goal: The student will have a working knowledge of common pediatric dermatologic conditions.

Objective:

1. Given a list of 5 common pediatric skin diseases in a closed book exam, the student will correctly list the etiology, common skin manifestation, chief differential diagnosis and acceptable pharmacologic management
for each disease. Kempe will be the criterion reference.

2. Given a slide presentation in class, the student will be able to identify 90% of the skin conditions/diseases shown.

3. In a 3 minute presentation during class, the student will describe the physician referral criteria for atopic, allergic and contact dermatitis as outlined in Hughes.

Required Readings:
Kempe, et al., Chapter 26 and 27
Hughes, Chapter 32

Recommended Readings:

Programmed Instruction (Required)
"Common Skin Rashes"

Unit XI
Common Pediatric Ear, Nose and Throat Problems

This unit deals with common disease entities that effect the respiratory tract of infants. As children between the ages of 9 months and 4 years have an average number of 8 to 10 colds per year, it is easy to see how respiratory problems are one of the most frequent complaints that bring children in for sick care. The differentiation of simple from the more potentially life threatening respiratory conditions is, therefore, the major focus of study.
Goal: The student will understand and be able to use terms and concepts basic to the study of common respiratory disorders seen in children.

Objective:
1. In a short answer quiz, the student will identify 6 out of the 10 AAP indications for Tonsillectomy and Adenoidectomy.

2. In a 5 minute class presentation, the student will describe the etiology, the major clinical manifestations, acceptable management (drugs, laboratory procedures and referrals) of 1 of the following conditions: serous, suppurative or external otitis; sinusitis; pharyngitis; and tonsilitis. The student will be given the patients age, and criteria for judging appropriateness of the discussion will be based upon the major reference texts.

3. Given a clinical study on a respiratory condition, the student will write a 1 or 2 page paper (outside of class) analyzing the appropriateness of the treatment chosen. This will be evaluated by a fellow classmate during the next class session by using the texts as references.

Required Readings:
Hughes, Synopsis of Pediatrics, pp. 327-338.

Kempe, et al., Current Pediatric Diagnosis and Treatment, pp. Chapter 12.

Recommended Readings:

Required Audiovisuals:
"Pediatric Ambulatory Series: Otitis Media"
Unit XII

Common Ophthalmological Problems

This unit deals with common ophthalmologic disease entities that are seen in children. Criteria for visual screening and methods of assessing the integrity of the eye are reviewed. The management role of the pediatric nurse practitioner in handling eye problems is outlined and criteria for physician referral is clearly established.

Goal: The student will be able to correctly identify common pediatric ophthalmologic problems.

Objective:

1. Given a list of 5 common eye conditions on a closed book exam, the student will correctly describe 3 as to their etiology, major clinical manifestations, and appropriate treatment modality (drugs, referral and follow-up) as per Kempe criteria.

2. In class students will correctly identify the referral criteria for visual acuity levels as outlined by the AAP standards of care.

3. In class given a case study on a particular ocular injury, the student will write a 100 word essay on the appropriate management of the particular injury as recommended by Hughes.

Required Readings:

Hughes, Synopsis of Pediatrics, Chapter 32.
Kempe, et al., Current Pediatric Diagnosis and Treatment, Chapter 9.

Required Audiovisuals:

"Childhood Strabismus" Video cassette #183
"Physical Examination of the Eye" Parts I, II, IV and VI (slide tape series)
VII. EVALUATION

A. Grading

Grading is based upon written examinations, outside class papers/projects and other assignments. The grading scale listed below will be utilized in this class.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage of Worth</th>
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<tbody>
<tr>
<td>1. Papers (2)</td>
<td>25%</td>
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<tr>
<td>2. Tests (total of 4 worth 15% each)</td>
<td>60%</td>
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<tr>
<td>3. Project (outside class)</td>
<td>10%</td>
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<tr>
<td>4. In class project</td>
<td>5%</td>
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</table>

Grade Percentage Obtained

- A = 91 - 100
- B = 81 - 90
- C = 74 - 80
- D = 73 and below

B. Procedures for Revising N680A

Evaluation data of the program's effectiveness will come from a variety of sources to include student's performance on papers, tests and projects. In addition, the formal university course evaluation done at the end of the course as well as the informal student course evaluation sheet designed for this course will be reviewed prior to the next full semester. Appropriate changes based on student feedback will then be made.

It should also be noted that the nursing graduate programs' curriculum committee critically reviews all graduate courses for consistency on an every three year cycle. As a final measure of the course's effectiveness,
the students ability to pass the national certification examination for pediatric nurse practitioners serves as an outcome measurement criterion. This test measures the graduate's knowledge of content critical to the role of a pediatric nurse practitioner. Thus, it reflects the appropriateness of the curriculum and this required course in particular.

C. Achieving Objectives - Provisions for failure
Students who complete the course objectives specifying tests, projects and papers will receive grades according to the percentages obtained. As this is a graduate level course, it is anticipated that mainly A and B grades will be awarded. Occasionally C and F grades have been given.

All student work is handed back promptly and a percentage grade is awarded. Prior to the last week in which courses can be dropped, students are given a written report on their accumulative progress to date and suggestions for future improvement are made. Tests, papers and projects cannot be repeated for a higher grade. As per CSULB policy, a student receiving a final course grade of F may repeat the course one time to earn a higher grade.

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